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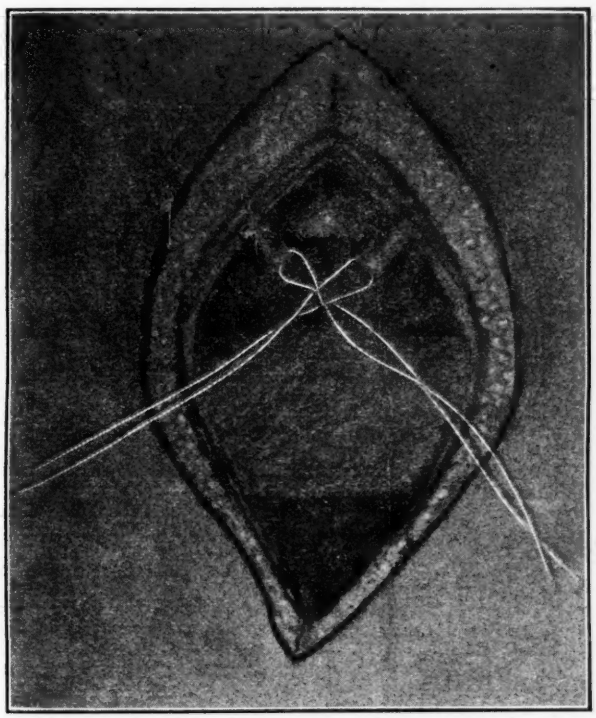
## ROUND-LIGAMENT-SHORTENING BY AN EASY METHOD.

By M. C. McGannon, A. M., M. D., Nashville, Tenn.

Professor of Gynecology and Abdominal Surgery in the University of Nashville.

At the meeting of the Southern Surgical and Gynecological Society, which was held in Cincinnati in December, 1902, I had the privilege of reporting a simple and easy, but effective, method of shortening the round ligaments of the uterus, which I had practist for some time. Dr. A. Palmer Dudley did me the honor of referring to it in his address at the American Medical Association meeting recently held at New Orleans. At Cincinnati I reported the results of the cases in which it had been employed. From the time of that report up to July, 1904, I had performed this operation twenty-eight times, and of these twenty-eight cases I have been enabled to follow eighteen of them for periods of from three to twelve months; hence I am able to speak knowingly of the anatomic and symptomatic results of the procedure.

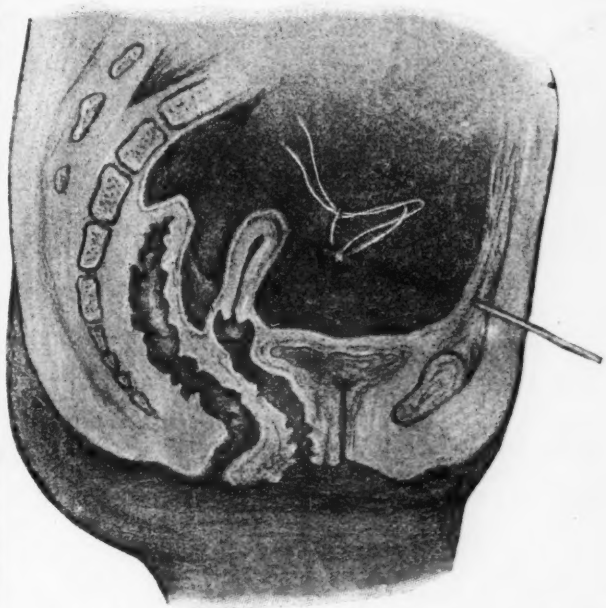


I shall make no plea or argument in defense of the many operations that have been devised, or that are being employed to correct backward displacement of the uterus. The fact that these operations are being performed the world over, by the foremost surgeons of the age, is sufficient reason for a continued effort to improve a procedure that promises relief to women who are suffering from this pathologic condition. The ideal operation for the correction of all backward displacement of the uterus has not yet been devised, and probably never will be found, for the reason that these mal-positions are accompanied, in the vast majority of the cases (especially when they come under the observation of the surgeon), by other pathologic conditions which prevent the application of any single operation to all cases. Modifications of the various operations that are practist have been devised chiefly because of these complications, and also because surgeons have recognized, and tried to remedy deficiencies in the operations already in use.

Ideal surgery is that which closest copies Nature's perfect plan, and many of the modifications of operations, devised for the shortening of the round ligaments, have been made with this ideal in the mind of the surgeon. The Alexander operation was, and is, the most perfect procedure yet devised. It is the one that closest copies Nature's plan, and utilizes the structures Nature has provided for holding the uterus forward. Unfortunately, it is not an operation suitable to many cases, and surgeons, recognizing this, have devised other means of accomplishing the desired result in cases to which the Alexander operation can not be applied.

### VENTRAL FIXATION AND ITS MODIFICATIONS.

Ventral suspension was devised and has been successfully practist with great relief to suffering women and with lasting benefits to the human family. It was easily discovered, however, that these operations had their limitations, and then intra-abdominal shortening of the round ligaments began to be employed in cases not suitable for either the Alexander operation or ventral suspension. The round ligaments inside the abdominal cavity come off from the anterior face of the uterus near the outer angle of its fundus; from thence they pass behind the peritoneum outward and forward, until they enter the inguinal canals. Normally, they measure 2½ to 3 inches in length, but when stretcht

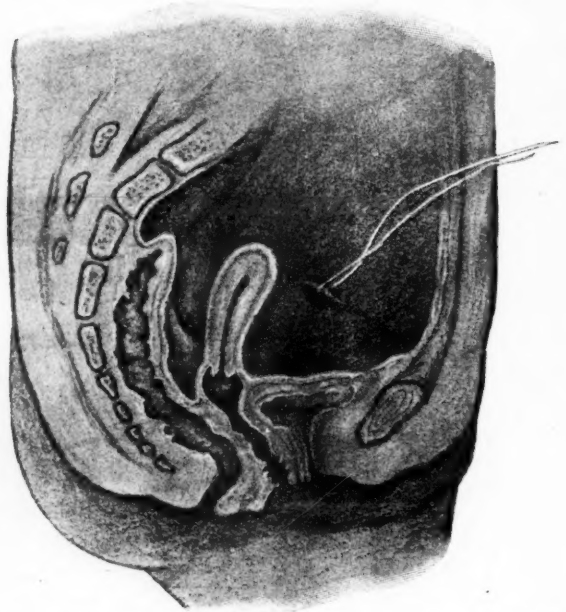


as a result of backward displacement of the uterus, they become from 6 to 8 inches long. These ligaments are thin and small at their point of entrance into the inguinal canals, but they are thick and strong near the uterus. When one stops to consider carefully the anatomy, the anatomical relations and the functions of these structures, in connection with operative procedures which seek to restore them to something like a normal functioning condition, one soon realizes that there are many things to be safe-guarded. The ligaments must be left sufficiently strong, not only to hold the uterus forward, but to return it to that position, when it has become displaced by the physiologic functioning of the other pelvic organs: the bladder and the rectum. An overfull bladder or a distended rectum will test their powers. The ligament must be efficient not only in its entirety, but also it must be efficient in its attachments. If the ligament be folded upon itself, its elasticity and its contractile power will be impaired, and its thin, weak, atrophied portion at the internal

inguinal canal will still remain an inefficient part. These same objections may be urged against the method of folding the ligaments across the face of the uterus. If the ligament be resected, either in its center or at either end, the strength of the structure will be impaired at the point of union, and an injured spot in the peritoneum will remain to invite adhesions. Transplanting the strong end of the ligament to a point behind the uterus leaves the structure weak at its thin, atrophied, outer part, while the trauma invites adhesions at the point at which the round ligament penetrates the broad ligament, and also at the point at which it is united to the posterior face of the uterus. The peritoneum must be injured as little as possible in order that there shall be no adhesions to later cause dangerous or distressing symptoms.

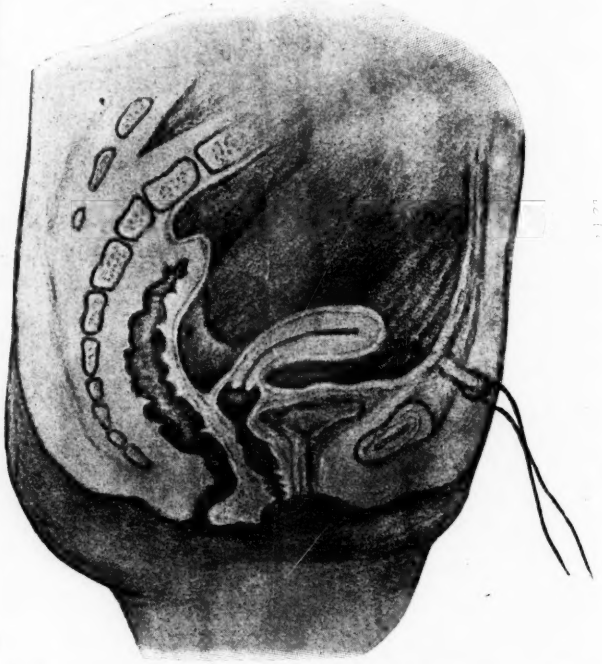
Some of the later operations, especially described by Ferguson of Chicago, Noble of Atlanta, Simpson of Pittsburg, and the last of all, publisht by Montgomery of Philadelphia in "The Therapeutic Gazette" of June, 1904, meet to a large extent the requirements for an ideal operation, when the abdomen must be opened. That they are not perfect, however, is evidenced by the fact that they each differ from the others in some respects.

The operation which I shall here describe no doubt has objections. What one has not? But it meets the requirements for anatomic and symptomatic success, as has been demonstrated by the results in the eighteen cases to which I have already referred, and which I was enabled to keep under observation for



many months. The operation as I do it today is the same as it was when I described it at the Cincinnati meeting of the Southern Surgical and Gynecological Society, in December, 1902. It is performed in the following manner:

A central incision, at least two inches in length, is made thru the abdominal wall, immediately above the pubic bone. The uterus is freed from any restraining influences, and is brought forward to its normal position. The round ligaments are in turn pickt up, about one and one-half inches from their origin in the uterus. A small incision thru the peritoneum at this point is now made, and a piece of pedicle silk is passt thru the opening and under the ligament. A pedicle needle or a curved forceps is next inserted at the margin of the wound at its lowest angle, underneath the peritoneum, and made to pass outwards until the round ligament is reacht, then along that structure until the point of the instrument emerges thru the little slit in the peritoneum previously made over the ligament, about one and one-half inches from the uterus. The eye of the needle or the opened forceps is next made to engage both ends of the silk loop, by which the ligament was surrounded and the instrument is withdrawn, conveying with it the thread. Dragging upon this thread draws the ligament upon itself immediately under the peritoneum, and out at the lower margin of the wound, where it appears in the form of a loop. This loop of ligament may then be so manipulated as to place the uterus in the exact position that the operator desires; in other words, the proximal part of the ligament may be made any length that is found necessary to hold the uterus in its normal position. The ligament as it is drawn forward to emerge under the peritoneum at the lower margin of the abdominal opening, puckers and shortens the broad ligament, and tends to elevate both the ovary and the Fallopian tubes. The loopt ends of each ligament is secured by stitching it with catgut to the posterior part of each rectus



muscle near the lower angle of the abdominal opening, and by uniting them together in the center line by means of catgut sutures. The abdominal wall may be closed by the usual method.

### ADVANTAGES OF OPERATION DESCRIBED.

The advantages claimed for this operation are:

1. It produces a round ligament of normal length.
2. The ligament is left a post-peritoneal structure.
3. It leaves no injury to the peritoneum by which adhesions may be invited.
4. It utilizes the strongest and most muscular part of the ligaments, and throws out of commission the weak, atrophic, fibrous, distal end.
5. The ligament is attacht firmly and efficiently to both the uterus and the abdominal wall.
6. The broad ligament is shortened. This I consider essential to success in all operations for shortening the round ligaments of the uterus.
7. It produces a minimum of trauma and does not penetrate or weaken any important structure.
8. The operation is easy of performance.
9. The time consumed should not exceed fifteen minutes, and in many cases the operation can be completed in five minutes.

## FRACTURED NOSE—DOEDERLEIN'S CLINIC.

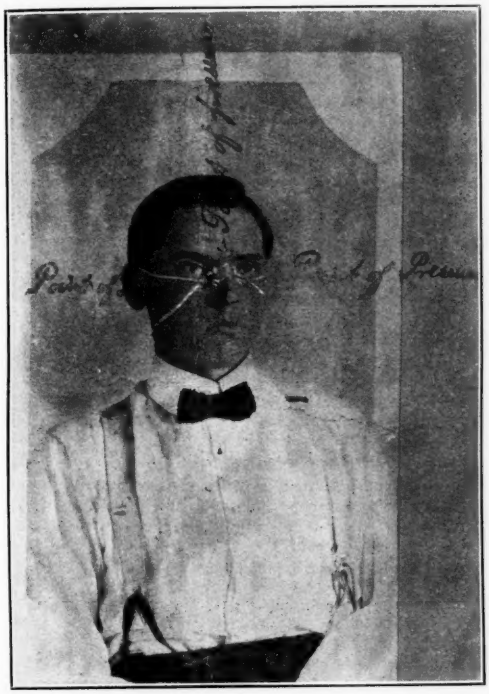
By Carl F. Roh, M. D., Germantown, Neb.

Some months ago I treated a bad fracture of the nose with a "home-made" splint with such satisfactory results that I am tempted to report the case. The splint was made of tin and lined with chamois' skin. By tying it as the photograph shows I was able to so adjust it as to get no pressure at all on the ridge of the nose, the chief point of pressure being on the front at bone. The tin can be bent so as to give some pressure on either side of the nose. It holds the parts perfectly and good results may be expected from its use.

As I have not read anything describing such a splint I fancy a note of its usefulness will be appreciated by the readers of American Surgery and Gynecology.

DOEDERLEIN'S CLINIC.

Some time ago I took a post-graduate course (during the winter semester) at Tuebingen, putting in seven months very profitably. I attended Prof. Doederlein's clinic and lectures five



hours daily, also taking von Bruns' lectures—until they became too dry—and those of Winternitz and Sarvey, Hofmeister and Siemerling. But most of all I profited by Doederlein's work.

I could not help comparing Doederlein (the old women call him "Toederlein") with Prof. Lanphear of St. Louis. First, his appearance: A gentleman, auburn hair and side-whiskers, gold-rimmed spectacles, clear and concise in his lectures—fearless, bold and terribly independent; and second as an operator: quick, systematic, successful. The resemblance was remarkabale.

Looking over my notes I find the following work done one day between 9 a. m. and 10:45.

1. Vaginal hysterectomy for cancer.
2. Operation for lacerated perineum and cervix.
3. Alexander-Adams's operation for retroversion.
4. Dilation and curetting uterus.

He treated me splendidly, and is partial to American graduates. The students are admitted four at a time, each for one month, in his clinics, but he permitted me to attend the clinics daily. All the students can attend his clinical lectures. And they are "worth while."

## THREE CASES OF INJURY TO THE URETER SUCCESSFULY REPAIRED.*

By A. Lapthorn Smith, B. A., M. D., M. R. C. S., Eng., Montreal.

Fellow of the American, British, and Italian Gynecological Societies; Professor of Gynecology in Bishop's University, Montreal, and of Clinical Gynecology in the University of Vermont, Gynecologist to the Western General, to the Samaritan and Womens' Hospitals.

There are three principal ways in which the ureter may be injured so as to give rise to a uninary fistula. First, by being compresst between the child's head and the pelvic wall during prolonged labor with impaction of the head; second, by being caught between the blades of the clamp during vaginal hysterectomy for cancer; third, by being accidentally cut during the removal of a large abdominal tumor, especially when the latter occupies one of the broad ligaments, in which case the ureter is displaced far from its proper anatomical relations. The proportion of frequency of these three ways, as shown by a paper by Fergman (who collected sixty-eight reported cases) was parturition twenty-five cases, vaginal hysterectomy twelve cases, abdominal section three cases.

I now wish to report three cases of repair of injury to the ureter caused in each of these ways, respectively. The first one (due to prolonged labor) was read before the Winnipeg meeting of the Canada Medical Association, August, 1901, and has already been reported in the Philadelphia Medical Journal, October 5, 1901; but the other two cases are now reported for the first time.

Case I. Mrs. J. B., 34 years of age, married, came to me at the Montreal Dispensary on the 1st day of July, 1901, giving the following history: She began to menstruate at 14, always regular and painless; she had one child, when she was 32 years old, while living at Vancouver, B. C. I afterwards learned from her doctor that he had been called to see a woman fourteen miles out in the country without knowing what it was for, and on arriving there he found the head impacted in the pelvis. He drove back to town for his forceps and returned next day and delivered her with great difficulty. A few days later large pieces of sloughing mucous membrane came away from the vagina, and it was noticed that she had incontinuance of udine. It soon became evident that the vagina and ureter had been destroyed to some extent by the prolonged pressure. [In Fergman's cases, of the twenty-five following parturition, fifteen were due to using the forceps too soon, and ten to using them too late.] After remaining in this pitiable condition of always being wet from dribbling urine for two years and seven months, her friends made up a collection to send her to England to try to have the injury reparied. About a year and a half before coming to me she went to London and spent three months in one of the best hospitals, during which time three plastic operations were performed without success. She then became discouraged and insisted upon returning to Vancouver, as she had determined to bear her misery as best she could. While passing thru Montreal on the way back a friend induced her to come to the Montreal Dispensary. I found the vulva ulcerated and the thighs excoriated, and could see the urine trickling from a small opening in the right vaginal fornix. I sent her into the Western Hospital, and after a long and absolutely accurate investigation of the condition, which I will not here describe, I did a plastic operation which failed because the stitches cut out of the scar tissue which had replaced a large extent of the mucous membrane in that locality. I tried once more by passing a silk-wormgut purse-string suture far above the mouth of the fistula, hoping to reach healthy tissue. But this also failed. Then I obtained her consent to try implantation of the ureter. This consists in opening the abdomen, finding the ureter, cutting it off above the injury, and implanting it into an opening made in the highest or nearest point in the bladder. As Howard Kelly lost one case by septic infection from the urine, this patient of mine was carefully prepared by giving her seven and a half grains of urotropin three times a day for a week beforehand. Van Hook's method was employed except that I did not follow his example of introducing the main traction sutures right into the cavity of the ureter and bladder, because I feared the formation of a calculus being deposited on the silk. I went thru the muscular layer only of the ureter and bladder. These main stitches were reinforced by many chromicized catgut ones, stitching the mucous membrane of the ureter to the mucous membrane of the bladder, and the muscle of the ureter to the muscle of the bladder. I was nearly able to do the whole operation without opening the peritoneal cavity, but owing to some unforseen difficulties I was obliged to open it for a few minutes. A drainage-tube was introduced to the site of the implantation in case it should leak, and a glass catheter **a demeure** was left in the bladder for a week. There was not a drop of leakage, and she made a good recovery and went home well, and has remained so ever since.

Case II. The second case, a Mrs. H., 29 years of age, mother of one child, which was dragged out with instruments twenty hours before natural completion of labor. She went to another doctor, who told her she had a badly lacerated cervix and treated her with tampons, which gave her great relief for the time. But getting worse again soon she went to Dr. Reddy, who diagnosed cancer of the cervix and urged her to have vaginal hysterectomy at once. He kindly called me, and I removed the uterus at the Women's Hospital within a few days of his first seeing her. As

*Abstract of paper read before the Medico Chirurgical Society of Montreal, 3 Feb. 1905.

it was difficult to draw the uterus down I employed the clamp method, and unfortunately caught the right ureter in the clamp; for two days afterwards, on removing them, there was a slight trickling of urine from the vagina. Transplantation was performed in the same way as in the previous case, but was not at first successful, because the traction was too great, owing to shortness of the ureter; altho the bladder had been detacht from the symphysis so as to bring it an inch nearer to the end of the ureter. It only partially pulled out, in about one-quarter of its circumference, and a month later a second operation completely cured it, and she is now perfectly well.

In the first case I was very ably assisted by Dr. Richie England, and in the second by Dr. Reddy.

Case III. The third case was Mrs. G., 37 years of age, who entered the Samaritan Hospital, 17 October, 1904, with a large, broad-ligament cyst extending up to the liver. She was married at 32, but had never been pregnant. As the tumor had dissected up the posterior layer of the peritoneum it required a great deal of tying and cutting in order to get it out at all. In one of the many bands holding it down was the left ureter, which was carefully avoided until near the end of the operation, when it was pickt up without being recognized, until the scissors had gone three-quarters thru it, when the mucous membrane of the ureter showed what had been cut. It was carefully sewed with two layers of black silk sutures, the first row interrupted, and the second continuous. As it was then found impossible to extract the last portion of the cyst from the depths of the pelvis, where it was imbedded among arteries and veins, I resorted to the old plan of marsupialization, that is cutting the tumor off at the level of the abdominal wall and sewing the edge of it to the peritoneum. One drainage tube was put in down to the bottom of the cyst, and another to the cut in the ureter. But there was no leakage from the ureter, and the tube was removed in two days; while the cyst drainage tube was removed in a week, when it ceast to be required. The patient made a good recovery, and is now well.

## VENTRAL HERNIA; PROLAPSUS UTERI FOLLOWING OPERATION FOR ECTOPIC GESTATION; LACERATED CERVIX AND PROLAPSUS.*

By E. E. Montgomery, A. M., M. D., Philadelphia, Pa.

Professor of Gynecology in the Jefferson Medical College; Gynecologist to Jefferson and St. Joseph's Hospitals.

CASE I—**Ventral Hernia**—This patient, who is thirty-five years of age, has a family history free from any hereditary disease. She had the ordinary diseases of childhood, as measles, chicken-pox and whooping cough, but otherwise has had very good health. Puberty occurred at the age of fourteen; the periods were always regular and normal. Her last menstrual flow was when seen some two weeks since. In taking the history of a woman during the childbearing period it is always important to ascertain the date of the last menstruation before proceeding to the examination. Not infrequently a woman supposing herself pregnant will apply to the physician for examination, hoping that something will be done to interrupt the gestation. The danger of such interruption is not so great as in former years, when the introduction of a sound was a part of the routine examination. Such information is important in considering the advisability of intrauterine applications, or the employment of the curet.

Further observation of her history shows that she was an inmate of the hospital some six years since, when she underwent an abdominal operation for extrauterine pregnancy, from which she made a good recovery. For some months she has complained of constant pain and tension, rectal tenesmus with a mass protruding from the anus, apparently a prolapst bowel. This protrusion is increast by standing or straining.

In the first investigation of a patient it is important you should make a careful investigation. Do not be content with interrogating the patient, but investigate for yourselves. This investigation should not be limited to the organs apparently affected. Do not conclude because a lesion of some organ is recognized that it may be the cause of all or any of the symptoms present, unless it be apparent that they could be only thus induced, but investigate the other organs as well, and thus ensure against overlooking some more serious condition or the existence of a more remote cause for the symptoms present.

*Clinical lecture delievered at the Jefferson Medical College Hospital.

In rectal prolapsus do not overlook the condition of the urinary tract, for vesical tenesmus is sometimes the cause of the prolapse. We inquire particulary as to the action of the bowels, as regards constipation or diarrhea. The physical examination comprises an inspection of the abdomen. The patient lies upon her back with the abdomen exposed, the lower limbs and pelvis covered by a sheet. You can see a red patch upon one side, which is an angioma, the result of dilated capillaries. The abdomen is not distended or enlarged. The surface is discolored in places, the result of pigment deposits during a pregnancy. In the median line is a whitish scar, which indicates the site of the incision to which we have referred. The wall here is thin and the fingers can be presst into it. I will ask her to cough, and she does so, you notice a protrusion of the surface in the center, which also occurs during straining. This is a ventral hernia. Pressing upon it I can push the intestine back and two fingers enter.

This hernia does not account for the prolapse of the rectum. Careful palpation fails to reveal any enlargement of the abdominal viscera, excepting the uterus, which is much enlarged. This enlargement is uniform. The organ is hard, dense to the touch, presenting a condition of chronic inflammation in which the connective tissue is greatly hypertrophied, and is known as fibroid uterus, sclerosis, or areolar hyperplasia. This heavy organ presses against the rectum, and by its interference with the circulation without doubt causes the interference with the rectal circulation and the protrusion of the rectal mucosa.

In the treatment of this patient we have to consider measures, (1) to reduce the size of the uterus; (2) to overcome and prevent the rectal prolapse, and, (3), to cure the ventral hernia.

1. In a chronically inflamed uterus of large size, where fibrous or connective tissue has been largely substituted for the muscular structure, the pressure upon the imprisoned nerves may cause a series of nervous manifestations which may keep the woman in a semi-invalid condition for life. When near the climateric it may be a serious question whether the extirpation of the uterus may not be a desirable procedure. Here, however, this is not an alternative. We will curet the uterine cavity and remove a portion from the cervix, and thus by the increast metabolism bring about a reduction in size. The changes thus brought about with the enforced rest will effect a considerable reduction in the size of the uterus and its pressure upon the rectum subsequently can be overcome by employemnt of a pessary by which it is raised up and thrown forward.

2. The rectal prolapse is found to be a pushing off and elongation of the mucosa, partly induced by hemorrhoids. Upon first observation it would seem the most effective procedure to dissect away the superfluous membrane and unite the edges with sutures, but such a procedure would remove so much of the membrane as to diminish the sensibility of the bowel to the presence of fecal material, and thus endanger retention. The dissection of the distended veins with the removal of prolapst tissue, known as Whitehead's operation, is not always free from danger of infection, which causes a stricture and loss of control of the bowel contents. We shall instead remove a portion of the prolapst structure with the clamp and cautery, trusting to cicatricial contraction to prevent recurrence of the prolapse. The electric angiotribe, as devised by Downes, affords the most effective method of employing the heat.

3. Cure of the hernia.—It must be our aim not only to cure the hernia, but so restore the ventral wall that a hernia cannot recur. To accomplish this we must cut thru the thin layer consisting of skin, cicatricial tissue and peritoneum; split the sac wall and expose the muscular layer. The hernial sac, which, sometimes is very large, should be dissected out so that nothing shall intervene between the opposing layers or normal structures. Frequently intestinal and omental adhesions will be found, which should be carefully separated. It is well in many cases to split the muscle-layer, which thus affords a larger and more resisting structure to bring in apposition and thus establish firmer resistance. The surfaces should be united by inserting a needle threaded with a No. 1 chromic catgut suture thru aponeurosis, muscle, and peritoneum upon the right side of the upper angle of the wound, and bringing it out thru peritoneum or the latter and part of the split muscle-wall upon the left side, and continuing by continuous suture thru the latter structure or structures until the lower angle of the wound is reacht, when the suture is brought out thru the aponeurosis. Silkwormgut sutures by a Reverdin needle are now passt thru all the tissues above the peritoneum and the ends secured upon either side by pressure-forceps. After the introduction of a sufficient number of

these sutures about half an inch apart, the wound is carefully dried and the continuous suture is carried back, closing the aponeurosis and upper part of the split muscle until the upper angle of the wound is reacht, when the two ends of the suture are tied and the silkwormgut sutures now tied. When the hernia has been extensive and a large surface remains, which is difficult to appose in the manner described, the suturing may be modified by carrying the silkworm sutures far enough beyond the wound edges to bring the entire raw surface in apposition, then by reintroducing the needle about half an inch from the point where the suture emerges, carry it beneath the skin across the wound to about the same distance from the other end of the suture, where it is brought out, thread the end of the suture in the needle and withdraw it. This forms a mattress suture, which is prevented from cutting by inserting a piece of iodoform gauze beneath the loop up on one side and tying over one upon the other. This mehod of suturing ensures the obliteration of all dead spaces, and the suture can be retained for two weeks or over, thus ensuring firm union of the wound before they are withdrawn. This method of suturing I have successfully employed in umbilical hernia when the opening was large enough to admit the closed fist.

Hernia, following an abdominal operation, is properly considered a discredit to the operator, yet in spite of every precaution it will sometimes occur. It took place much more frequently when the thru-and-thru suture was used. It can readily be understood why this should be; the necessary inversion of skin and peritoneum into the wound results in leaving but little opportunity for the union of the proper resisting structures. The structure of greatest resistance is the aponeurosis, and this method of wound closing afforded no surety of the close apposition of its edges. Not infrequently the sutures were tied so firmly as to produce necrosis of the tissue enclosed, and when inserted near together the slough could involve the entire length of the wound. I, for a time, practist the figure-of-8 suture, making the cross at the aponeurosis, but often found the tissues would become necrotic from the constriction, resulting in stitch-abscess and a weakened ventrum. The method of suture above described I have followed for several years, and have observed but one case in which hernia has followed in non-infected cases. Every precaution must be exercised to secure healing without suppuration. The wound must be sponged free of blood and everything be kept clean. Wound-infection necessarily weakens the ventrum.

As this patient has been subjected to a number of procedures, her after-treatment becomes more significant. The rectal operation was followed by the insertion of suppositories containing: Ext. opii, gr. i, iodoform, gr. v, and the latter will be continued twice daily. She will be given water freely, and after the stomach is quiet, broths. As an intestinal antiseptic we will order acetozone gr. ss, well diluted, every two or three hours, and thus prevent the formation of gas. The bowels will be moved by a saline in forty-eight hours, and thereafter daily. A soft diet may be given after forty-eight hours. The sutures will be removed in eight to ten days; when the mattress sutures are employed they should not be removed for two weeks.

CASE II—**Lacerated cervix and prolapsus.**—The next patient is thirty-one years of age and has a good family history. She had measles in childhood. Puberty occurred at the age of fifteen; the periods were always regular, but exceedingly painful. The pain was most severe prior to the flow. Her last period occurred one week ago. She was married when twenty-three years old, and she has given birth to three children. Each of her labors was tedious and completed with instruments.

She sustained a severe laceration of the anterior and posterior vaginal walls. Three years ago she was operated upon for uterine retroflexion, when an Alexander operation was done. She has complained of her present symptoms for the last five or six years. She suffers from nausea and vomiting for one or two days prior to menstruation; has constant pain in the back, tearing pain in the pelvis and occasionally violent headaches. She is constantly fatigued and has frequent and painful micturition. When standing or straining a mass the size of an egg protrudes from the vagina. She has a profuse leukorrhea, which at times is exceedingly offensive and gives her great discomfort.

As she strains you will notice the protrusion, which evidently consists of the anterior vaginal wall, and hence is a cystocele. You can see that the protruding tumor is in a continuous line from the urethra. The finger inserted into the vagina passes behind the protruding mass. I recognize the cervix behind it by its greater resistance. The finger enters it and reveals its diversion into two portions or lips, which is produced by a laceration. As I examine more closely the anterior portion is found to be much larger than normal. In other words, the anterior lip has become hypertrophied, while the posterior has undergone involution. We do here a combined amputation and trachelorraphy. The former is confined to the anterior lip.

But the mere correction of the condition of the cervix will not be sufficient to relieve this woman's discomfort. She has, as you remember, a cystocele, and the dragging of the relaxt anterior wall has had much to do with the hypertrophy of the anterior lip. We will dissect out a portion of the anterior vaginal wall, push up the bladder from the cervix and tuck up the bladder, stitching it at a higher level upon the cervix, after which we will suture together the retracted vaginal wall. In this way we remove the strain and secure firm support by utilizing the fascia. All the sutures here used were catgut, so it will not be necessary to remove them.

## ON THE EXPECTANT TREATMENT OF APPENDICITIS.*

**By Augustus C. Bernays, A. M., M. D., M. R. C. S., St. Louis, Mo.**

Chief Surgeon to the Lutheran Hospital.

About thirty years ago, at the time when I began the practice of medicine, after having finisht a university course of five years, one of the important things I had learned was the treatment of peritonitis. The method in vogue then at Heidelberg, Vienna, Paris, in fact at all the universities which I attended during the years 1872 to and including 1876, was as follows: Very scant, liquid diet, amounting to starvation in some clinics, frequent copious enemata, rectal feeding, opium, initial doses of calomel, castor oil, etc., the regime varying but little in different clinics. In England and in America the "opium splint" was thoroly introduced. In the service of Sir Spencer Wells, opium was given after all abdominal sections, in order to prevent peritonitis. His lowest mortality in one hundred cases of ovariotomy was about 13 per cent, his average was 16. Then came Lawson Tait, who, even before Bouchard, arrived at a crude autointoxication theory, and acting upon it, changed the opium method, which he had tried for years, into the purgation and cathartic treatment. At one stroke he reduced the mortality of abdominal section from 15 per cent to less than 5 per cent. This feat of Lawson Taits' should be counted among the greatest therapeutic triumphs, coming before the autointoxication experiments of the French scientific experimenters—as it did. Lawson Tait, in his empirical unscientific way, said that purgation with salts, etc., not only flusht and cleansed the sewers of the organism of their toxic contents, but further that the lymphatics of the intestines and mesentery, being loaded with used-up toxic material, were drained by active catharsis. His empirical teachings have now been sustained by experiment, and the opium treatment has been relegated to the records, where many therapeutic mistakes are put away.

The experience of many surgeons of large practice has shown the purgation-treatment to be superior to that by opiates, yet under the influence of Ochsner there is once more a tendency to abandon catharsis by either salines or enemata; indeed to even return to the use of opium to check peristalsis. To show clearly what I am polemicizing, let me quote one of Ochsner's sentences which he offers with a view of reducing the mortality: "Thesis 4. In all cases of acute appendicitis, without regard to the treatment contemplated, the administration of food and cathartics by mouth should be absolutely prohibited and large enemata should never be given."

To this thesis or proposition I would offer the following amendment, or, rather, substitute: In all cases of acute appendicitis the administration of food should be very scant, but cathartics and large enemata of warm water should be regularly given. In order to make a more perfect antithesis, I might add the phrase "without regard to the treatment contemplated," because even tho an early operation be intended the purgation and the enema would greatly favor the patient, besides greatly facilitating the surgeon's work.

By contrasting the two sentences of advice the reader at once sees the difference, and can decide which method he will follow in his practice. From the standpoint of a surgeon my experiences leave no room for doubt; the results will be vastly better when operating upon a patient who has been regularly purged, than in those patients who have not been flusht out by cathartics and enemata. Acting upon this conviction I recom-

*Author's abstract of article in Medical Review, with additional remarks and a post-note.

mend my substitute to the general practitioner who may decide in favor of an expectant treatment of a case of appendicitis.

For fear of being misunderstood, I wish to state that the ideal* method of treatment is the operative method, carried out in the beginning of the attack. If for some cause this time has been allowed to pass, then I also agree that the expectant treatment may come into consideration and will often give better results than the operation in late cases. The best time for operation having past, the purgation treatment will give the best results, and not the method which has by some been called the "Ochsner method." This latter method looks like turning backwards the hands of the clock in its progress, and ignoring the advances recently made in the art of medical practice, returning to a time now over twenty years past.

This is not the place to discuss the long settled question, of the possibility of purging a patient by means of cathartics into his own peritoneal cavity or celoma. I rather think that the warning against cathartics and enemata is based upon a fear of rupturing an existing walled off abscess into the celoma or peritoneal cavity. But this danger seems to me quite as imaginary as the first mentioned and not really based upon well authenticated autopsies. But a discussion of these questions would lead us into experimental pathology and pathological anatomy.

I have seen many perforated appendices and the escaped fluid was always limited to the fluid contained in the appendix before the perforation. In 350 cases operated on during the last few years I have notes bearing on this question. In most of these cases cathartics had been given before the operation, and if they had not been given, I ordered them to be given, as well as enemata before making the operation. In no case did I ever see escape of intestinal contents caused by the cathartic, either into the abscess cavity or the peritoneal cavity. Of course the fluid, pus, or at least purulent material had a fecal odor; in fact fecal concretions, coproliths, and similar substances having fecal odor were often found. Only rarely would manual pressure upon the exposed cecum press out fecal contents, and I am sure that cathartics would never expel contents of the intestine thru a perforation as long as the abdomen is closed. The contents will always follow along the line of least resistance, which nature has wisely placed along the lumen of the intestine. Were it not for this provision of Nature our efforts in abdominal surgery could amount to but little, for no kind of suture, ligature or union would hold against internal intestinal pressure.

Several other theses besides No. 4 are erroneous, notably No. 9, which says: "All practitioners of medicine and surgery as well as the general public, should be impresst with the importance of prohibiting the use of cathartics and food by mouth as well as the use of large enemata in cases suffering from acute appendicitis."

In the interest of reducing the mortality this thesis should read: All practitioners of medicine and the public, if you like, should know that the proper treatment of acute appendicitis is by the regular use of cathartics and copious warm enemata and the restriction of food by mouth to minimum of liquid nourishment and rest in bed with large, moist, warm antiseptic poultices over the belly.

Ochsner's thesis No. 2 is also misleading. I will quote it in toto: "No. 2—Patients suffering from acute appendicitis should be operated on as soon as the diagnosis is made, provided they come under treatment while infectious material is still confined to the appendix, if a competent surgeon is available."

According to my observation, on opening the abdomen the infection will be found to have spread beyond the outer coat of the appendix and to have involved the adjacent intestines and their peritoneum in at least nine hundred and ninety cases out of any thousand cases. It may be that in ten of the cases the disease will be limited to the inside of the appendix in acute cases in which the diagnosis is made by a competent man. In cases in which the infectious material is confined to the appendix there should be no postoperative mortality. I have not been so lucky as to find ten cases confined to the appendix in my entire life, and I have seen over 1,700 appendices thru abdominal section. I do not agree that the diagnosis can be made with regularity and certainty as long as the infection is confined to the mucous, or inner, coat of the appendix, where it nearly always—I may say where it always—starts. This thesis No. 2 must be dropt, because it deals with a condition that is rarely diagnosed. The other theses may pass; they deal with subjects that are well understood and I may say that I only wish to do away with the theses that oppose the use of cathartics, because I believe their regular use will very materially decrease the mortality of acute appendicitis, no matter by what other methods they are treated. My strong views against the use of opium are sufficiently well known, having been publisht and read before important societies, for instance, the Oregon State Society as well as the Iowa R. R. Surgeons' Society as long ago as 1896, or even earlier.

Statistics about the mortality of appendicitis as a whole or relating to any stage of the disease are worthless, for reasons that are well known to all thinking men. I once had seventy successful cases of acute appendicitis (this was in 1895 and 1896). I have never been able to equal this record since. I have once since had 38 cases in succession cured by prompt operation. [I speak of acute febrile attacks only].

We have tables showing all the way from 1 4-10 to 18 per cent mortality following the operation in acute cases. All of them are based on long series of cases. The interval operation has no mortality except a purely accidental mortality. The operation in acute cases is necessary; in the interval operations are always a matter of choice as to time, and are not necessary in the vast majority of cases, but in my practice removal is done at the request of the patient and at a time when it is convenient to the patient as well as to myself. I do that operation with as much ease and pleasure as I feel at any agreeable event in my life. On the other side the operation in the acute febrile state is always a major operation surrounded by many uncertain and unknowable circumstances often requiring the prompt application of all the resources which past experiences have taught the surgeon. We know that there exists a mortality of about 8½ per cent, according to the publisht tables as they now exist. The mortality of appendicitis if all cases were treated by the expectant plan is not exactly known, but is about from 12 to 16 per cent—surely not lower than 12 per cent.

That the mortality of appendicitis is lower if the operation is done promptly in the beginning of the attack is certain. The conclusion must be **that all appendicitis cases must be operated upon at the earliest possible moment of the attack.**

*The ideal method would be to remove the appendix before it becomes diseased, but that will always be a pious wish, because we can never foretell the attack.

That peristalsis is encouraged by almost all substances such as food or drink is certain, but that the best way to stop peristalsis is to empty the bowels is equally certain. The mildest, surest and safest way to do that is to use a solution of salts, e. g., Epsom, Glauber's, Citrate of Magnesia, etc.

## SUDDEN DEATH.

By Byron Robinson, Chicago.

"There is nothing in medicine more difficult than to discover the cause of death"— Dr. A. Jacobi. At present it is impossible to write a paper approaching finality on the causes of sudden death, for they are frequently unknown—undemonstrated even with the addition of an autopsy. Perhaps "sudden death" should include cases which die within half an hour after an attack. A condenst presentation of a few of the causes of sudden death as related to particular visceral tracts may prepare the way for a comprehensive view of death in general, demonstrating that sudden death is intimately related to deaths from natural causes.

In the causes of sudden death it seems to me we must bear in mind the vegetative centers which especially belong to the sympathetic nerve, particularly the vaso-motor, circulatory or cardiac center and the respiratory center—both located in the floor of the fourth ventricle. It may be noted that the circulatory and respiratory centers in man are well separated as the circulation will proceed for some time (over an hour) with cessation of the respiratory center. Circulation, respiration, and the nervous system are the vital tripod which maintains and correlates the existence of animal life. At the apex of the vital tripod is the circulation. Both circulation and respiration possess a center located in the floor of the fourth ventricle.

It has puzzled me for some time how to adopt a classification for subjects of sudden deaths. After some study I concluded to adopt a classification of sudden death according to visceral tracts. Tho this is the most rational and convenient classification I can suggest, it is nevertheless, defective, as sudden death may be due to disturbance in several tracts. For example an embolus (circulatory tract) may lodge in the respiratory tract (lung), or nervous tract (brain) producing death. If one analyzes a large number of cases of sudden death it will be

quite evident that the fatal issue is a result of continued disease in one or more visceral tracts.

### 1. Tractus Vascularis 60 Per Cent.

The tractus vascularis is responsible for the majority of sudden deaths—over 60 per cent. Some of the causes of sudden death from the vascular tracts may be noted as follows: (1), embolus; (2), anemia; (3), myocarditis; (4), destruction of the cardiac center; (5), fatty degeneration (myocardium and vessel-wall); (6), cardiac malformation (as patent foramen ovale); (7), aneurysm; (8), disease of the coronary arteries; (9), rupture of heart or cerebral vessels; (10), endocarditis; (11), angina; (12), valvular defects. In many patients there are pathological lesions (inflammatory or degenerative, chronic, latent, suppurative) in the heart, arteries or veins. These foci become the location of thrombi, which may dissolve, fragment and float in the blood-channels to the lung, kidney, spleen, liver, brain, and the serous membranes as emboli. The thrombus is doubtless many times performed at the time a surgical procedure occurs. The patient may posses an altered state of blood favoring thrombosis, and eventually embolism. The cause of sudden distribution of emboli is, in general, some extra exertion or bodily trauma. The general distribution of emboli following surgical operations is relatively: (1), pulmonary, 70 per cent; (2), renal, 12 per cent; (3), splenic, 8 per cent; (4), hepatic, 5 per cent; (5), cerebral, 4 per cent; (6), the serous membrane, (pleura, peritoneum and joints), 30 per cent.

An ambolus may be (a), blood clot; (b), air; (c), fat.

The embolus exists in two states, viz., aseptic and septic.

Aseptic embolus damages chiefly by mechanical conditions, compromising function, respiration, circulation of blood and lymph, renal secretion and nutrition, and injuring the peripheral nerves. An example of aseptic embolus is seen in sudden death following parturition due to an embolus from placental site being carried by the blood-stream to the arteria pulmonalis. In every subject I examined with embolus of the arteria pulmonalis, the embolus accumulated slowly and the sudden death was due to a sudden mechanical obstruction or change of position of the embolus, as rolling or bending on itself.

The embolus originates especially from the vessels of the tractus intestinalis, tractus genitalis, tractus urinarius; however, less often from those of the tractus nervosus, tractus respiratorius. The puerperal patient should be viewed as a wounded person.

Septic embolus damages not only by mechanical, but by bacterial conditions—infective, toxic and suppurative processes.

Death from embolus is more frequent than is noted by physicians who do no personal autopsies. Postmortems are very instructive in cases of sudden death, tho not always revealing the cause of death. Large numbers of sudden deaths following operations on the peritoneum are due to embolus.

### 2. Tractus Respiratorius—15 Per Cent.

The tractus respiratorius is responsible for the next highest rate in sudden death—15 per cent. In the Pathologic Institute at Kiel during 15 years there were 5,132 autopsies, among which were 174 cases of sudden deaths. Of the 174 sudden deaths 22 died from pneumonia—12.5 per cent. In following autopsies for a few years it becomes apparent that frequently patients enter the hospital with no diagnosis and suddenly die from pneumonia. This is a frequent occurrence in the spring, midwinter and fall months in the infirmary, almshouse and poorhouse. Immediately previous to death the patient may present very little detectable pathology. A short time ago I was present at an autopsy where sudden death occurred with no diagnosis. The patient walkt in the hospital and died the same day. All that could be found at the post-mortem to account for immediate death was a pneumonic area in the right lung about two inches long by one inch wide. I doubt if any physician could have diagnosed it in the living. With such a limited area of pneumonia to cause death the patient's organism, constitution or power of resistence in all probability was debilitated by other disease, alcohol, narcotics, mental or physical strain.

Numerous other causes of sudden death from the respiratory tract increases this percentage as: (1), obstruction of trachea (asphyxia); (2), edema, laryngeal or pulmonary; (3), destruction or pressure of the respiratory center; (4), laryngismus stridulus; (5), obesity; (6), pressure on the oblongata, asphyxia (accumulation of blood in the left segment of the heart and lungs); (7), asthma; (8), emphysema.

### 3. Tractus Urinarius—12 Per Cent.

The tractus urinarius is responsible for a goodly number of sudden deaths, perhaps next in order to that of the tractus respiratorius—12 per cent. The factors of prominence in sudden deaths from the tractus urinarius are: (1), nephritis; (2), uremia; (3) diabetes; (4), renal embolus.

The tractus urinarius is accompanied by an extensive venous system of large caliber liable to infection, phlebitis (gonorrhea, stricture, calculus) hence embolus is not uncommon.

### 4. Tractus Genitalis—10 Per Cent.

The tractus genitalis accounts for a goodly number of sudden deaths, perhaps 10 per cent. It is a tract of extensive venous supply, plexus pampiniformis, and is peculiarly liable to infection, phlebitis (gonococcus or streptococcus endometritis at placental site)—venous thrombosis, which dissolves, fragments and floats thru the blood-stream.

The following are factors residing in the genital tract which account for sudden deaths: (1), embolus (specially following parturition; (2), ruptured ectopic pregnancy, hemorrhage, infection; (3), hemorrhage (hematocele, hematoma); (4), uterine invagination which I have known to cause death in less than two hours from shock. The ovarian vein is the one frequently thrombosed and by dissolving or fragmenting the embolus is originated and started on its journey thru the venal vein and inferior vena cava.

### 5. Tractus Nervosus—10 Per Cent.

The tractus nervosus is overrated as a factor in sudden deaths. Perhaps less than 10 per cent of sudden deaths are due to the nervous system. In sudden death certain visceral spans must be observed, including death within the function of the sympathetic nerve. John Hunter died within a few minutes during a fit of anger.

A slight shock, blow, or over exertion in a weak, exhausted person may result in sudden death—this would, however, be among the natural causes of death; e. g., alcoholics do not resist disease as pneumonia due to debilitated nerve-centers.

The following factors in the sudden death from the nervous system may be recognized: (1), exhaustion (latent, chronic, or continued infection, over exertion); (2), cardiac paralysis (diphtheria, infection); (3), infection (diphtheria, streptococcus, etc.); (4), vagus inflammation; (5), meningitis (latent or chronic); (6), convulsions; (7), shock; (8), spasm; (9), joy, grief, anger, emotion, fright, icterus; (10), trauma on the abdominal brain (ganglion coeliacum), inducing reflex action in distant organs, as a blow on the epigastrium; (11), epilepsy; (12) destruction of the respiratory or centers, cerebral hemorrhage, pressure on the medulla (as fracture); (13), cerebral congestion; (14) cerebral anemia.

### 6. The Tractus Intestinalis.

The tractus intestinalis accounts for a number of sudden deaths. The most typical example is that of intestinal perforation from typhoid fever (5 per cent), when the patient is exhausted from defective nourishment and long continued infection. Also the tractus intestinalis may be the seat of volvulus, invagination, or acute obstruction, inducing sudden death. Causes of sudden death may be found in the appendages of the tractus intestinalis, as the pancreas (necrosis), or liver (acute yellow liver atrophy). It must be remembered that the tractus intestinalis is accompanied by an extensive venous system of large caliber (gastric, hepatic, splenic, superior and inferior mesenteric—portal system), hence is liable to phlebitis with consequent thrombosis and eventual embolus. All experienced abdominal surgeons are aware of the frequency of embolus following operations of the tractus intestinalis (as in herniectomy, appendectomy, hemorrhoidectomy) especially from operations in the region of the superior and inferior mesenteric veins following phlebitic states. Besides the superior and inferior mesenteric veins are frequently phlebitic and therefore liable to possess thrombus with eventual embolus at any time.

### 7. Tractus Lymphaticus.

The tractus lymphaticus accounts for sudden death mainly in connection with other visceral tracts, as the tractus respiratorius (pleurisy), tractus vasculoris (pericarditis), joints, arthritis (synovitis) and tractus intestinalis (peritonitis). Also chronic (latent) infection with sudden renewed invasion of the process as rupture of abscess, or sudden extension of the infection with chill.

To resume: Sudden death has attracted the attention of physicians from high antiquity. It constitutes perhaps one per cent of all deaths. Frequently no single lesion (physiological, anatomical, pathological) will explain the sudden death (as when it occurs from joy, grief, or anger). Sudden death is rarely due to a demonstrable localized lesion of the vital tripod (heart, lung, or brain). It is more likely to be the consequence

of a series of complications. It follows chiefly diseases of the circulatory apparatus.

We are not always precisely informed as to the exact cause of sudden deaths. I have been at many posts when no cause, or no demonstrable cause of death could be observed. For example, a young girl had sudden abdominal pain a week previous to entering a hospital. During her eight days of illness she had abdominal tenderness, vomiting and constipation. On the eighth night of illness she awoke with pain, and while speaking turned pale and died suddenly—instantly. The autopsy demonstrated only a pinhole perforation on the ventral wall of the stomach, surrounded by a circle of exudative peritonitis about one inch in diameter.

The most plausible explanation of sudden death external to the demonstrable physical facts is the sudden destruction of the function of the circulatory center, a vegetative center in the floor of the fourth ventricle. In man for sudden death we must look to the circulatory center chiefly, as the respiratory center may cease acting long before death, while the circulatory center is definitely functionating. The heart may beat an hour after respiration has ceast. (I observed the heart beat one-half hour in a subject with respiratory cessation, recovery), but the cessation of circulation results in instantaneous death. The death certificate assigning as the cause "heart disease," tho cloaking ignorance and fear of exposure, may, therefore, eventually be approximately correct.

In operations on the peritoneum reflex irritation of the abdominal brain may check, shock, or paralyze the heart; or, in other words, produce constriction of the vessels of the medulla oblongata.

Perhaps most sudden deaths arise from embolus. The sudden death due to an embolus in a vegetative center, the floor of the fourth ventricle, is preceded by (anemic) convulsions of the muscles of the face, eyes, and neck (similar to the convulsions of a steer slaughtered by bleeding). The death from embolus in the pulmonary artery is generally due to asphyxia. Embolus causes death (a) by anemia of vital or vegetative centers (floor of the fourth ventricle); (b) by asphyxia, mechanical (in the pulmonary artery); (c) by infection, sepsis; (d) by destruction of parenchyma, infarcts, devitalizing the maximum power of organs. An embolus in general is fragmented from the local thrombus thru dissolving and trauma, extra bodily activity, or dissolution, liquification of the thrombus. The chill following is the result of infectious distribution by oxidation in the blood.

The myocardium may be the seat of a chronic (latent) fatty degeneration and under the strain of an anesthetic, and the operation may be acutely diseased, ending in sudden death from cardiac paralysis.

### Prevention.

**Can sudden postoperative death** (from embolism) **be retarded?** Patients about to be operated upon, especially when the peritoneum is to be opened, should have anatomical and physiological rest from forty-eight to seventy-two hours, or more, according to the gravity preceding the operation in order to produce maximum visceral drainage, to avoid the fragmentation of any thrombus thru the surgical or anesthetic trauma and extra bodily effort, and also to allow acute inflammatory process to subside.

All abdominal surgeons of experience have observed the frequency of embolus following operations for appendicitis, hemorrhoids, and hernia (tractus intestinalis); operations for pelvic diseases as ovariotomy, pyosalpinx, pelvic peritonitis (tractus genitalis); operations on the kidney, prostate and bladder (tractus urinarius). The vast venous plexuses connected with the tractus intestinalis, tractus genitalis and tractus urinarius are prone to phlebitis and consequent thrombus, which may dissolve or become fragmented, becoming a floating embolus. Simple anatomical and physiological rest may avoid liquifaction or fragmentation of the thrombus.

The great essential in surgery is, first and last, diagnosis. The acute diagnosis of any pathological lesion in heart artery, or vein, suggests ample and proper time of preparation, especially for all surgical interventions on the abdominal organs closely related to the large plexuses of veins belonging to the systemic or portal systems where thrombotic veins may exist. The surgeon, as respects embolus, should be on his guard in operations for infected appendix, strangulated hernia, hemorrhoids and infected pelvic organs. Most emboli appear to originate or to fragment as the result of some bodily trauma, hence it is the duty of the surgeon to give the patient the benefit of all doubt by placing the patient in as perfect a condition of physiological and anatomical rest as possible several days previous to operation.

Ample and complete visceral drainage by means of water (better, one-half physiological salt solution) is the first essential, not only to avoid shock in the operation, but for physiological and anatomical rest. The tractus intestinalis should be completely evacuated, a dozen movements, so that one can see the bile glistening in the stool. The tractus urinarius should be drained by drinking eight ounces of decinormal salt solution every two hours for six times daily, which increases the quantity and clarifies the urine. With the tractus urinarius and tractus intestinalis drained to a maximum, the patient can be placed in the most perfect condition of physiological and anatomical rest, which is the safest condition for any surgical intervention. It is a prophylactic against embolism. Such a state withstands to the highest degree the trauma of anethesia, shock, peritonitis, infectious invasions, nephritis, pneumonia, and embolus.

The avoidable death is the black spot on the surgeons escutcheon.

## HOW TO REDUCE THE MORTALITY RESULTING FROM OPERATIONS.

By J. A. Riviere, M. D., Paris, France.

Chevalier of the Legion of Honor.

The contemporary surgeon gives proof in his work of a perfection, of a security, of a mathematical certainty of success, of an admirable virtuosity. Sure of his most delicate dissections, counting on the quadruple alliance of anesthesia, of asepsis, of hemostasis, and of antisepsis, does he not hold all the winning cards in his grasp? Whether we consider suppurative processes, tumors, or deformities comprising the general health, mechanical obstructions or lesions disturbing the work of an organ of function, the art of curing by operative interference has in our time attained a degree of perfection and certainty which has not a little contributed to extend the prestige, and to marvellously enlarge the domain, of modern surgery.

And yet, too often we have still to deplore the catastrophes following on operations independently of the surgical act properly so called. I consider that these catastrophes could be perfectly well avoided by preventive medicine, by elementary hygiene. I am convinced that by insisting here on the precautions to be observed, I shall preserve many of those who have to undergo an operation from a sudden and unexpected death, many families from despair, numerous surgeons also from undeserved stains, tarnishing their reputation in cases in which, nevertheless, their professional skill is rarely in question.

It is only by taking a firm stand on medicine, and by remaining faithful to its medical foundation, that surgery can maintain its grandeur, its strength, and its power for good.

The patient who comes to the surgeon is, above all, even in the case of recent traumatism, a subject of acute toxic influence:

1º The lesion itself is often the result of chronic toxic influence.

The fact is undeniable, above all when suppuration is present, pus being, in our view, nothing else but a means employed by nature to get rid of organic poisons.

2º Emotional and depressing influences are sufficient to vitiate organic fermentations, in particular those of the digestive tube; they thus increase the sum of injurious products, and these cannot be thrown off to a sufficient extent by the organism.

3º Insufficient action of the liver, which brings in its train obstruction and disturbance of the kidneys, is common in cases which come under the surgeon's care. The disturbance of the moral nature which precedes the operations is sufficient moreover to paralyse the liver and to bring on bile-poisoning ("se faire de la bile.")

The surgeon has thus devolved on him a two-fold mission:

1º A mission of preventive medicine, which consists in effecting a complete washing-out of the entire organism under toxic influence;

2º A mission of surgical deliverance, which consists in removing the diseased tissue or in suppressing the source of suppuration. This two-fold action is absolutely necessary. Indeed, the surgeon should always remember that the local lesion is but the local consequence of the insufficient elimination of general waste-products.

The practical conclusion of these principles is, that it is wise to bring to bear all the means of organic purification: calomel, castor-oil purgation, heat, and water, (which applied in time,

would have prevented the suppuration and other infective processes), are still indispensable, when the patient is obliged to undergo surgical treatment.

I assert then, as a principle, that most of the accidents connected with operations, deriving, as they are, from a uniform source (insufficiency or organic purification) are eminently preventible occurrences, and that too, with a maximum of probability in favor of success. All depends upon the preparation of the patient.

This consists less in keeping up the strength, and in toning up the nervous system, (as was formerly believed, than in favoring the normal cleansing of the economy by the great emunctories. The majority of operative catastrophes are brought about by renal insufficiency, (anuria, uremia), insufficiency consequent on the imperfect functioning of the kidneys and liver. It is thus in the liver and kidneys that we must, in my opinion, seek the causes of unexplained fatalities after well-conducted operations, and not in the operative shock itself, which has been made a very scape-goat in such cases. Allowance must also be made for the indubitable influences of depressing moral conditions, which act on the nervous system, and bring on inhibitory phenomena, known to be most unfavorable to the return of full vitality, and sometimes even to induce sudden death. Everybody knows the importance of the supreme rule of the cerebro-spinal system, which I was amongst the first to bring to light, under the name of "neurarchy."

This is how we should proceed, in the case of a patient to be operated on, to rid the organism systematically of toxic influence:

Two days preceding the operation, should be administered at midnight a cachet of 0.25 of calomel, and 0.25 of bicarbonate of sodium; five hours later, should be given 20 grams of castor-oil, beaten up in hot water, then, abundant hot drinks, after the first purgation, keeping up meanwhile the heat of the room, as well as of the bed. The following day, (day preceding the operation), should be given 20 grams of sulphate of sodium in a glass of hot water so as to continue the work of general purification of the organism, and to check the stools obtained by the calomel and the castor-oil, as well as to bring on the transitory constipation (48 hours at the most) which is so useful to the operated patient, once he has got rid of, however, his toxic waste and we have stimulated the torpidity of his liver and kidneys.

Finally, in the afternoon, (an hour before the last light meal, which should precede the operation of the morrow), the patient should be given a hot bath, and rubbed with soap and the horse-hair glove, so as to remove the dead epidermis from the living parts beneath.

Moral influence should never be neglected: gentle words, and the conviction earnestly expresst that a certain restoration to health will result, constitute valuable contributions to the cure; the sick person, buoyed up with hope, becomes the principal author of his awakening to new life, and of the improved working of his restored health. We must never fail then, in the case of an operation, to fortify the courage of the patient, and to impose the fixt idea of cure on his sinking spirits. We should avoid all that might make an unfavorable impression on his pessimistic imagination: anesthetising in the operating-theater; untimely words, imprudently uttered before or during the narcosis, (the degree of which, as regards the power of ideas, can never be quite certain), as well as those expressions which might impress an unfortunate suggestion on the patient: I have seen a mere misplaced gesture thus entail the loss of a patient, who would quite well have recovered. (The joyous always cure, used to say Ambrose Pare, the father of modern surgery). The nervous system holds the reins of the organism, and the moral nature is first and foremost a cerebal function. Annoyance, dread, anxiety, even mere low spirits, act as if they were the veriest corrosive toxines. Men undoubtedly die from the fear of dying; the moral shock then acts just like an external injury; moreover, the surgeons who most often cure are the most energetic in manipulating human nature, in dominating the vagabond imagination, in inspiring faith, that salutary lever of cure. Those who are operated upon should be always spared emotions which sometimes induce their sudden death, and which always increase the difficulty of cure, or make it more doubtful. The patient who has read his death-sentence on the faces of those present, is a doomed man, even when the fore-cast was not justified. Complete silence, then, should be enforced in the neighborhood of the patient, from the moment of commencing anesthesia. This discretion should be considered as particularly due to the helpless being, who has put his trust in our science; to act otherwise, would constitute, in my eyes, a very breach of confidence. The surgeon has need of complete silence, that he may concentrate himself on his noble mission.

There are, above all, two practices, far too prevalent, against which it is my duty to protest: the abuse of morphine-injections, and of serum-injections. On the fallacious pretext of avoiding the groans of the operated, (and even in cases where there is no acute suffering), the hypodermic syringe is filled, and the terrible alkaloid is injected, which binds the liver and kidneys, prevents the elimination of secretions, and favors the fatal anuria, to which the operated are already only too much predisposed by the surgical anesthesia and by the shock of operation. Let us then be content, as a rule, to calm the pain with harmless cachets, with a basis of phenacetine, or of antipyrine combined with bicarbonate of sodium, or let us use enemas of chloral.

As to the employment of voluminous injections of serum, if they sometimes are found useful, (in certain cases of grave hemorrhage and of markt weakness), we must be careful not to prescribe them systematically in all cases of operations. Tho sometimes found useful, these injections constitute an absuridty when we have to deal with plethoric subjects who have not lost one drop of blood; for the chloride of sodium thus injected cannot but surprise and irritate the tubuli; this action becomes a source of albuminuria, of oliguria, of uremia and of anuria. For my part, besides, the anuria explains many of those sudden deaths wrongly attributed to shock after operations described as successful.

If it is admitted to be of the highest importance to favor the elmination of waste-products before the operations and not to paralyse this elimination afterwards, it is just as necessary, for the proper repair of the wound, and for the maintenance of the general health, to continue for some time this general washing-out and this complete purification of the organism with the help of laxatives and water, administered in sufficient quantities.

Every grave operation induces a disturbance of molecular renovation, leading to alteration of the blood and nutrition. The nervous upset, the loss of blood, the shock to the vitality, inevitably caused by the suppression of a portion of the organism, the laying-bare of the deep tissues, etc., create special biological conditions for the time being. We must then, by a well-defined preparatory treatment, endeavor to compensate for this hurtful action, so productive in suppressions of function and in complex dangers. Every operative violence becomes a pretext for the inhibition of the most important vital acts, and I am not here referring to cases of diathesis, to alcoholic, uremic, glycosuric, or albumonuric subjects, so prone to septic complications.

In my view, every patient operated should be suspected of dyscrasia, and every operation may make an impression on the viscera. An acute and fatal development may be imparted to latent lesions, and cases, which in appearance suffer from but slight constitutional damage, often collapse completely under relatively simple operations, which had been a perfect success from a surgical point of view. The chief influence at work in these cases is unnoticed disturbance of the liver, concealed alteration of the blood-making function of the cells, or unremarkt symptoms of Brightism. It is certain, moreover, that menstruation, pregnancy and old age, aggravate operations by their influence. These conditions, as Verneuil has observed, induce a state of diminisht resistance and bring about formidable morbid disorders in the great functions of nutritive depuration. It is this state that it is our duty to avoid.

## CONCLUSIONS.

To sum up: Besides the ability of the operator, three important factors are concerned in the complete success of a surgical operation:

1º The enemy who is already within the gates, (auto-intoxication morbid centre).

2º The enemy without, (microbes).

3º The moral state.

The surgeon, who, with his other qualities, should always combine in himself those of a profound psychologist, so as to raise and stimulate the moral strength of his patient, will enter the lists advantageously against auto-intoxication if he arms himself with calomel, castor-oil, heat, and water. Antisepsis will rid him of the invading microbe, asepsis will preserve him against the microbe from without.

Morphine, which, especially after choloform, hermetically locks up the kidneys and liver, should only be employed in quite exceptional cases.

As to the use of large injections of salt-solution we should make the greatest reservations, as these injections interfere with the eliminating function of the renal filter, by the shock and irri-

tation which they inflict on the delicate epithelium of the kidneys.

Kind words inspired by sympathy and affection, acts of charity such as the simple humanitarian feeling indicates, the hope of a speedy recovery constitute, besides, the best stimulants for the cure. These are the true regenerating forces of the sick.

## PNEUMONIA A SURGICAL DISEASE.

By Lewis Schooler, M. D., LL. D., Des Moines, Iowa.

Professor of Surgery in the Iowa College of Physicians and Surgeons.

The varieties of pneumonia will not be discusst in this article for the reason that each variety will present the same symptoms at the time they should be transferred to the surgeon, and his treatment will be essentially the same in all cases except, perhaps, in the senile and hypostatic state, which is prevented frequently by the malady or age for which no pretense of remedying is advised.

The reasons for believing pneumonia to be a surgical disease are two-fold. First, it is not amenable to medical treatment, medicinal treatment rarely if ever influencing the course of the disease, at least to any greater extent than to contribute to the comfort of the patient while the malady runs its course, and in mild cases allows the patient to survive. The severer forms terminate fatally regardless of the treatment and the apparently robust condition of the individual; indeed, it sometimes apparently carries off the stout and really healthy quicker than those who are less favored generally. Second, there has been no improvement in the treatment and no lessening of the mortality during the last one hundred years. Pathology and bacteriology have enlightened us greatly regarding the cause and the effects, and have, in my estimation, indicated the course to be pursued with not only a hope, but with greater success than by our present methods.

It is not contended that success will be attained in every case, but to the same extent that it does in a large number of other surgical affections, which are not only legitimate but imperative and cannot be reacht in any other way. Numerous abdominal diseases were for ages classt as "medical cases," and with the result that now attends the purely medical treatment of pneumonia.

With a better knowledge of pathology and the science of bacteriology, we are enabled to understand why our therpeutical resources had to be enlarged and broadened until today almost every one who practices medicine regards himself as a surgeon, and the young medical man no longer desires his friends to speak of him in any other terms than as "a good surgeon."

That this is an extreme there can be no doubt; yet, it has been the cause of saving more lives than when the former state of affairs existed, when the doctor stood idly by and in helplessness and despair awaited the end that now we so readily prevent.

Infectious diseases in every other portion of the body are treated, when the time arrives, by surgical methods. An infected hand or foot of the graver varieties is always drained at least, and sometimes sacrificed in order to save the life of the patient. Traumatisms are frequently the predisposing as well as the exciting causes of the infection, and conservative surgery is here resorted to in order to prevent infection or to lessen its effects. The boldness of McDowell, Spencer Wells and others, taught us that the peritoneum could not only endure insult and injury, but was our greatest ally in taking care of infection. It has also been demonstrated by every surgeon, as well as many who are not surgeons, that the costal pleura will survive grave traumatisms, even under unfavorable conditions, and today we do not hesitate to wound it or to remove large portions of it for the purpose of relieving or even curing infectious diseases.

Inflammatory diseases in the stage of effusion does not deter, but on the other hand demands that we resort to surgery for relief, whether the result of infection or trauma. Purulent conditions if acute, demand the same procedure. In chronic cases, surgery of a more pronounced character is the proper method. No one hesitates to resect the ribs (sometimes the ribs and pleura) extensively, in order to remove an accumulation that is not only harmful locally but generally, and if the destruction of lung tissue has become extensive, the operation of Estlaender is an actual necessity. Here we have not only the infection but the results both present, and yet the results of operative procedures are good so far as the life of the person is concerned, and if timely we avoid local disaster to the lung tissues. But, if the disease has progresst so far that no hope of a useful lung is entertained then we still operate, tho only to relieve the patient of the infection and to prevent further destruction. How many punctures of the lungs have been made in attempts to evacuate fluid from the chest cavity on account of errors in diagnosis or efforts at making a diagnosis, can never be known, and in all cases where antiseptic precautions have been observed, no one can recall a case in which harm resulted; yet there are cases, as will appear later, in which good was accomplisht.

Dr. Merrill Ricketts of Cincinnati, Ohio, has been for a long time engaged in experimental work and in original research in the study of the effects of trauma of the lungs of the lower animals, and read a remarkably interesting paper on that subject before the surgical section of the American Medical Association at New Orelans in May 1903, showing conclusively that ligation of blood-vessels, constrictions of portions of lung-tissue, resections, etc., were perfectlly feasible operations; the whole article tending strongly toward a demonstration of the fact that the chest and its contents afford a vast field, full of opportunities for the surgeon of the near future.

Doctor Coplin's paper on Changes in the Intercostal Muscles and the Diaphragm in infective processes involving the lung and pleura, contains some very valuable hints bearing upon the subject under consideration, especially in view of the meagerness of the literature upon these and allied subjcts. Under the heading of pathogenesis I quote from his article.

### PATHOGENESIS.

"It seems to the writer that the cause of these changes in the intercostal muscles is clear. Feiner has shown that after injecting fluids containing suspended granules into the pleura the extraneous matter may be demonstrated in the costal pleural lymphatics, and that but little resorption takes place thru the pulmonary pleura. When we consider the fact that in inflammations of the lung and pleura the interlobular and intralobular lymphatic systems can be seen engorged with products of absorption from the lung principally, we can understand how the parietal or costal lymphatic system must necessarily care for the major part of the drainage from the pleural cavity. This being the case, toxic materials passing off by this route are brought in close proximity to the intercostal muscles and diaphragm; it seems reasonable to assume that direct lumphatic paths may become occluded, being in close proximity to the centers of irritation, and, therefore, collateral currents must form thru the intercostal muscles, thereby exposing them to the dangers induced by more or less persistent bathing in toxic lymph. If the infection be active or the resistance low, or both, the pathogenic organisms may be carried into the muscle, giving rise to suppurative processes, such as have been described by Rohrer in the diaphgram, and figured in one of the preceding cases as occurring in the intercostal muscles. If the bacteria be scanty or of indifferent activity or the patient's resistance high, they remain in the lung or pleura, and the muscles escaping direct infection suffer from the toxic action only." He also refers to an article of Kuettner's read before the thirty-third congress of the German Surgical Society, June, 1903, as follows: "Kuettner has made an exhaustive study of the perforating lymphatics of the diaphragm. He shows that the drainage territories of the diaphragm are such that abundant opportunity is afforded for transdiaphragmatic infection, and has so workt out the lymph-paths as to show that while each half of the organ possesses its own lymphatic field communicating with other parts by way of lymph-nodes only, all parts of the diaphragm possess anastomotic communication with the pleura and peritoneum. The anterior and posterior lymph-vessels communicate and drain in common into certain glands; some of these vessels vertically traverse the diaphragm twice in coursing over it. Taken with the studies of Rohrer and my own observations, it seems that Kuettner's work forms the necessary link in completing our already fairly full comprehension of the possibilities of transdiaphragmatic infections. That a juxtaposed abdominal viscus may infect the pleura or pericardium (e. g., hepatic, splenic, and perirenal abscesses and gastric ulcer) has long been common property, but that lesions of a finer texture may be recognized, and that the four great serous cavities are really intercommunicating lymph-spaces, is within recent times leading to deductions, some of which may be important. Is it possible that the pneumococcal inflammations of the peritoneum (even when primary) may be transdiaphragmatic infections, the lung and pleura escaping in some cases? The frequency with which the ribs suffer typhoidal osteomeylitis is suggestive, and if, as Fraenkel holds, the typhoidal spondylitis is really a bacillary

infection of the cancellous tissues of the bodies of the vertebrae, the demonstration of abdominal and thoracic lymph-system as so closely allied threatens, as the result of a minor disclosure to lead one into a labyrinth of unjustified speculation. It is not the purpose of this paper to consider transdiaphragmatic infections, the passage of fat-necrosing substances thru the diaphragm, and cancerous extension from peritoneum to pleura, or the reverse; these subjects have recently been studied by von Burns and Jensen, in pneumococcal peritonitis; by Henle, in an article on "Pneumonia and Laparotomy;" by Truhart, in considering intrathoracic fat-necrosis is disease of the pancreas, and by Tilger, in pleurisy and peritonitis; Kuettner discusses and gives most of the references. The demonstration of lesions in the tendon of the diaphragm is only a minor extension of Rohrer's observation."

The avenue of escape of infectious material regardless of the direction in diseases of the lung is into some other tissue paralelling infections of all other tissues. If the resistance be high or the bacteria few, they run their course and perish while remaining confined to a limited area. In other cases we have numerous scattered foci which we call metastasis, resulting in the production of numerous abscesses.

That the pneumococci may produce the same results on the surface of the diaphragm, the pleura, and in the substance of the intercostal muscles is observable, not only during life but at the post-mortem, where it can be more accurately demonstrated. In each of these sequelae we adopt the same treatment that we do where the original focus occurred in a joint or in connective tissue.

Fraenkel made a bacteriological study of twelve cases of empyema, and in three of the cases the pus contained only pneumococci. He assigns to the pneumococcus (in pus taken from a pleural cavity) a diagnostic significance, as it proves beyond all doubt that the suppurative pleuritis occurred in the course of a pneumonia as a secondary affection; consequently, its presence in the pus is positive proof that a pneumonia exists or has existed, even if the clinical and physical symptoms were not sufficiently clear to indicate its existence. We make no pretense of being ahead of our time, but the truth of a theory may not be demonstrated until long after it is proposed—as in the case of intubation. In 1856 Bochut suggested and actually practist a crude method of intubation, which, however, the ridicule of his confreres soon forced him to abandon, and in 1867, Dr. E. S. Gaillard read a paper on diphtheria before the American Medical Association proposing the same procedure and recommending an open end catheter for the purpose, the writer having listened to him on two occasions in 1874 and 1878, when he strongly advocated the method. In 1880 Dr. Joseph O'Dwyer began the study of intubation, and three years later gave to the world a perfect instrument, which is used by every one at the present time. O'Dwyer met with many failures but with a sufficient number of successes to warrant the publication of his experiments. He, perhaps, would never have persevered had it not been for the high rate of mortality under medical treatment and with the bad results after trach'eotomy. In pneumonia do we not find an exact parallel so far as medical treatment is concerned? If so, no great harm can come of a trial of any procedure that is rational and practically devoid of danger and that has its parallel in all other infectious diseases, and in them with the happiest results, saving thousands of lives and ameliorating the sufferings of millions annually.

Again, the operation, while it has never to my knowledge been undertaken deliberately, has, nevertheless, been practist in a few cases with good results, and if the method has succeeded in cases of mistaken diagnosis, it is certainly reasonable at least to suppose that when resorted to under favorable conditions and along definite lines with a well-defined object in view, the success will be much greater. We have knowledge of cases in which aspiration was practist where there was a pneumonia but no fluid in the pleural cavity, the lung, however, being punctured with the needle, the operator feeling certain of his diagnosis (but being deceived by the affection of the muscles as described by Coplin, and by the density of the solidified lung) resected a portion of a rib and found an absolutely dry cavity, concluded that he had an abscess of the lung, proceeded to puncture in a half dozen or more places in an endeavor to locate the pus. No pus being found the wound was left open, with the result that the escape of the infected fluids drained freely thru the wound and resulted in absolute cure of the patient in twenty-four hours! Other cases of a similar character could be given, and all with the same happy termination and to the best of my recollection, without a single bad result in any case.

The proposed operation is simple enough in the hands of all experienced surgeons, tho it should not be undertaken by those lacking in manual dexterity, for the reason that prolonged manipulation is annoying to the patient where a local anesthesia is depended upon, and a long general anesthesia is dangerous on account of the condition of the patient when the operation is demanded. In all except children and extremely nervous individuals local anesthesia will be sufficient. The time required will be short, and the pain induced by the operation will be practically nil.

## INDICATIONS.

Before proceeding to a description of the operation, however, it will be well to consider what class of cases should be submitted for operation, and who should decide when the time has arrived for an operation. This should, as in all other cases, be early enough and not done as a last resort or when the patient is in a moribund condition. It is claimed that some cases are aborted by large doses of calomel and other measures if the patient is seen at the beginning of the disease, but I believe the majority of authors agree that if this cannot be brought about during the first twenty-fours hours, then the disease will "run its course." This in my judgment is the time when surgeons should be associated with the interest and the case carefully observed by both until it becomes evident that further medical treatment will be of no avail. Perhaps the best evidences of this will be when the respirations are above forty per minute. This, of course, will vary in different persons and under different circumstances. The condition of the patient and the effect of the disease upon the respiration will be the chief guiding symptoms. In children and in the aged the respiration-rate will differ from that of adults, especially in the strong and robust. In the former it will be from a third to a half faster, and in the latter somewhat slower.

There are other factors that will enter into the consideration and have a bearing upon the decision when to operate, but as these will have to be considered by those in charge of the case, I will not discuss them here, but proceed to describe the operation of choice.

## OPERATION.

As intimated above, local anesthesia can be used in most cases. This is preferred because it will add little or nothing to the burden of the patient, and may be injected into the tissues over a sufficiently large area to allow of the resection of a portion of one or more ribs, when the costal pleura may be opened. If "solidification" has occurred there will be but little collapse of the lung. The lung is punctured with an aspirating needle or a trocar without a canula in several places, and an inch or two in depth; in addition to this the visceral pleura may be incised in numerous places, even extending superficially into the lung substance without danger, if we are only careful to avoid the larger bronchi and blood-vessels. The wound should be drained, either with the ordinary rubber drainage tube or with the cigarette-drain. Some judgment will be required in preventing too great a drain upon the already weakened system, but in the hands of a competent man the danger from this source will not be great.

My preference in the selection of the agent for the purposes inducing the anesthesia are nirvanin, Schleich's solution, or eucaine B. with kelene in selected cases. Cocaine being deemed more hazardous than either of the above preparations, should probably be excluded.

In order that the natural drainage of the lungs and pluera may be understood at a glance I have inserted here a few lines descriptive of the lymphtices thru which the drainage takes place.

The lymphatics of the lung and visceral pleura form two sets, a superficial and a deep. The deep accompany the pulmonary vessels along the bronchial tubes to the root of the lung, where they are joined by the superficial set, both terminating in the bronchial lymphatic glands. These in turn pass the lymph along the trachea one duct on the right and one on the left, emptying into the right and left lymphatic ducts; the right terminating into the left or the thoracic duct proper. The parietal lymphatics of the thoracic wall are classified into the superficial and the deep. The superficial terminate in the axilla. The deep are considered under two heads (a) intercostal and (b) diaphragmatic. (a) The intercostal drain the parietal pleura and the thoracic walls and run anteriorally and posterially in the intercostal spaces, connecting with the sternal glands in front and end posterially in the intercostal glands and the thoracic duct. (b) The lymphatics of the diaphragm follow the vessels of the diaphragm and terminate anteriorally in the internal mammary and anterior mediastinal lymphatic glands. Other vessels accompany the phrenic artery, and others posteriorly terminate

in the post-mediastinal lymph-glands, while below they communicate with the lymphatics of the liver and of the peritoneal cavity.

RESUME.

1. Acute pneumonia is at the present time regarded as an infectious disease.
2. The mortality rate is very high.
3. Medical treatment does not greatly, if at all, influence the course of the disease.
4. Surgical treatment is the rational method in nearly all infectious diseases with localized manfestations.
5. The operation proposed is not difficult in the hands of competent men, and not dangerous to the patient.
6. I fully believe that the procedure is founded upon a sound anatomical and pathological basis. Consequently it is perfectly rational.

## HYSTERECTOMY—SPECIMEN WITH HISTORY.*

By V. C. Pedersen, M. D., New York City.

Lecturer on Gynecology in the New York Polyclinic.

I wish to present a specimen which was removed from a patient with a very peculiar history; and the operation itself was hysterectomy for extensive laceration of the cervix. The patient's history, previous to marriage, was negative. Ten months after marriage she was delivered of a full term dead child, with instruments. Puerperium lasted ten weeks, with severe symptoms. Two miscarriages, the following year, were followed by pregnancy some months later, with what was considered menstrual flow during the first six months. She was delivered of a full term male child by the breach, with little trouble, puerperium lasting ten days. This child is strong and healthy at the present time. Eighteen months later she was again pregnant, giving birth to a second male child. The mother nearly lost her life thru hemorrhage. This boy is also living and in good health at the present time. Nursing was impossible on account of weakness of the mother; she was, however, able to nurse her first son for fifteen months. In the summer of the following year she was again pregnant, and during the winter nearly had a miscarriage. She gave birth, however, to a female child. This labor was nearly natural, and no physician was on hand at the time. This child is also living and in good health. A year later she was taken sick with apparently accidental hemorrhages during a pregnancy. Upon her physician's advice she went to a hospital in Connecticut, where a curetting was carried out, four days after which she had a miscarriage of apparently a six weeks' fetus!

Later in the same year she again went to the same institution, where she was treated for syphillis. Her doctor, doubting the diagnosis, sent her to a specialist in this city, who positively denied the existence of syphilis in the eruption. In December of the same year the patient had a miscarriage. In December, 1903, she was sent to a New York hospital for the repair of a very extensive laceration, extending almost to the left horn of the uterus. Suture of the tear was done, and secondary hemorrhage almost carried the patient off. After her recovery she was told to return in October for examination, and then she was informed that hysterectomy was necessary, but her condition would hardly warrant the operation. I saw her late in October, in excellent general health and spirits, and showing a uteurs normal in size, form and consistency, freely moveable from the back, right side and front, but distinctly adherent on the left, where an extensive infiltration was present, associated with an extensive tear, the depth of which was not fully explored. Hysterectomy was advised and performed November 17, 1903. The patient made an uneventful recovery and was discharged December 15th. The operation, which proved somewhat difficult, was carried out thru an abdominal incision.

When sent to New York, the patient had been suffering intolerably for two or three months at each menstruation, and had been scarcely free of pain at any time. Since the hysterectomy the doctors say she has been entirely free of pain, well and happy, recognizing each menstrual epoch, and has had a number of hemoptyses, which subsequently changed to epistaxis at the time considered by her to represent her monthly flow. A report from the doctors state that she has gained in weight, and her monthly flow is still recognizable, being accompanied by epistaxis, frequently, occasionally by hemoptysis, and once by hemorrhage from the bowels, and by the usual nervous disturbances.

*Reported to the Clinical Society of the New York Polyclinic.

## THE TECHNIC OF URETER CATHETERIZATION.

By Geo. W. Jones, M. D., Keokuk, Iowa.

Professor of Genito-Urinary Surgery in the Keokuk Medical College of Physicians and Surgeons.

This paper upon ureter catheterization, on account of the breadth of the subject, will be confined in its scope to ureter catheterization in the male.

The purposes of ureter catheterization in the male may be divided into diagnostic and therapeutic.

Under the first division, ureter catheterization may be used to determine the presence of both kidneys when operation upon one of the organs is contemplated; to determine the functional activity of one or both kidneys; to determine the presence and position of ureteral calculi or ureteral stricture; to determine the source and meaning of a pyuria, and to ascertain if the pus comes from bladder or kidney, and if from the kidneys, which kidney is affected. In like manner to determine the source and meaning of hematuria. Occasionally the source of a pyuria or a hematuria may be determined without one's catheterizing the ureters, blood or pus being seen to issue from the uretral opening corresponding to the kidney affected. For the purpose of determining the functional activity of the kidney often a simpler means than ureter catheterization will suffice, consisting of administering to the patient a sub-cutaneous injection of indigo-carmine, and by cystoscopy determining the time required for the urine colored with the dye to appear at the ureteral openings.

Under the head of therapeusis, the ureteral catheter may be used to dilate a ureteral stricture; to dilate the ureter that a ureteral calculus may pass, to treat by drainage and irrigation suppurative conditions of the kidney and the kidney-pelvis.

One of the most important uses for ureter catheterization and irrigation of the kidney is its application to the treatment of chronic parenchymatous nephritis in its incipency. This treatment is to a certain extent experimental in that it has not been used sufficiently long to demonstrate that the improvement is permanent and that the disease will not relapse after one year, the longest time that patients subjected to this treatment have been under observation. But there can be no doubt that many patients treated in this way have an improvement in their general condition and a total disappearance of albumin and tube-casts with a return of urea to the normal standard.

The writer has made an effort to briefly summarize some of the uses of ureter catheterization, not going into that subject extensively, as to do so would be using material sufficient for several extensive papers, and this has to deal with technic of ureter catheterization in the male.

In cystoscoping the bladder and catheterization of the ureters in the male two classes of cystoscopes may be used; first, the indirect view, the picture seen thru the cystoscope being a reflection upon a mirror in the instrument, hence an inverted image; the second being a direct view thru lenses if fluid distension of the bladder is used, and thru an open cylinder having a glass window at the proximal end if air distension of the bladder is employed. The direct view instrument is the preferable instrument used with fluid distension of the bladder. To be uniformly successful in ureter catheterization the bladder must contain an amount of fluid or air equal to distension of the organ with three ounces of fluid.

In air distension of the bladder an excessive amount of cocaine must be used in the bladder to prevent such severe pain as to interfere with catheterization; the patient must be in the knee-chest or greatly exaggerated combined lithotomy and Trendelenberg positions, positions difficult to maintain without a special chair or table for the purpose. The technic is rendered more difficult by the jets of urine which pass from the ureteral openings and necessitate frequent syphonage of the bladder, which, after being done requires the redistension of the bladder with air.

Fluid distension of the bladder commends itself for the following reasons: In its use the position of the patient is not of importance, the bladder is examined in its normal method of distension with fluid, the fluid distension does not cause pain unless the bladder is acutely inflamed, the urine passing in jets from the ureters does not necessitate its syphonage, as in air distension, as it quickly mixes with the fluid distending the bladder.

Before entering upon the technic of ureter catheterization the writer wishes to state that he believes that catheterization of the ureters in the male should not be attempted except after one has become familiar with the cystoscopic appearances of the normal and pathological bladder, and with the use of the cysto-

scope as an observation-instrument, by its use in the examination of many bladders.

The technic the writer will describe is for the use of Tilden Brown's or the Cabot's modification of Tilden Brown's cystoscope. These instruments consist of an outer oval tubular shield thru which is introduced a telescope, upon the sides of the telescope being means of carrying and manipulating the ureteral catheters. The telescope is so arranged that if kept in focus the instrument at no time comes in contact with the muscoa. The instrument is constructed in such a manner that thru it the bladder may be distended with fluid or continuously irrigated during the examination.

Before cystoscoping the bladder if possible a sound should be passt for several days before the first examination to accustom the patient to urethral instrumentation. In cases of cystisis the bladder should be irrigated several days before and just previous to the examination.

The tubular shield spoken of above is introduced like an ordinary sound and the obturator it carries withdrawn, when thru the shield urine in the bladder will flow out. Then the telescope carrying the catheters is placed inside the shield and pusht into the bladder. The bladder is distended by means of a piston syringe thru an opening in the cystoscope provided with a valve. When the bladder has been distended with the fluid, a 10 per cent boracic acid or a 1 to 4,000 formalin solution, the electrical connections are made which lights the electric lamp at the end of the instrument illuminating the interior of the bladder. The source of the current for the light may be the street current reduced by a transformer or current controller, or a four to six cell battery. With the eye to the telescope every part of the bladder may be carefully examined and pathological conditions noted.

In catheterizing the ureters the most difficult part of the procedure is finding the ureteral openings. As these vary greatly in appearance and position in different bladders this can be learned only by experience and by many observation cystoscopies before catheterization is attempted with a hope of uniform success. But some general rules may be laid down to aid in finding the ureters. First the cystoscopist must disabuse himself of the belief that the ureters have a uniform position in all the bladders, or that they exist at a certain uniform angle or distance from the median line, or at a certain uniform position in the long axis of the bladder. The ureters usually lie at the position where the red or salmon colored border of the trigone merges into the lighter upper position of the bladder-base. So, if the cystoscope is turned at an angle to one side of the bladder and gradually withdrawn the position of this change in color will be found, and following this line along from side to side the ureteral openings will often be found. Often this line of demarkation is not clear and the cystoscopist's experience must tell him where it should exist.

When the ureteral opening is found the catheter tip is introduced into it and the catheter gently pusht to the kidney-pelvis. The cystoscope may be removed, leaving the catheters in position and urine from each kidney collected for examination or the kidney-pelvis irrigated with medicinal solutions.

If the ureters are extremely difficult to find the sub-cutaneous injection of indigo-carmine may be used to show their positions.

The appearances of the ureteral openings vary greatly. They do not often appear as an opening, as many textbooks upon anatomy would lead us to suppose. In the dead subject, relaxation of muscular fibres about the ureteral orifice would make it a large opening, but this is not frequently the case in the living subject. In fact, studying ureter catheterization in the dead subject is of very little aid to catheterization in the living.

The opening is often seen as simply a red spot in a lighter background, with nothing in its appearance to suggest an opening, or when situated low down upon the trigone as a light red or pinkish spot with a red background. It may appear as simply a depression, occasionally as an open slit in the mucous membrane, more frequently as a linear spot of redness which becomes a slit when the catheter is introduced. It may be situated upon the summit of a large papilla, but this is rare. The opening may be observed when it is about to discharge urine, when it will become elevated open and discharge a swirl of urine, as it opens exposing the red mucosa of its lining. In ureters difficult to find it is a great aid to carefully watch for this opening of the ureter, as at this time they are easy to find. The swirl of urine may be used as a guide to aid one in finding the approximate location of the ureter.

The position of the ureters are as various as the appearance of their orifices.

The landmark to their usual position has been mentioned and the absence of the landmark at times also noted. Often the ureteral opening is covered by a fold of the bladder wall pusht up by the prostrate; this can be pusht out of the way with the tip of the cystoscope.

The position as regards the median line is quite variable, the openings may be very near the median line or far to one side. The writer has seen a case in which both ureteral openings were so near the median line that by holding the cystoscope in the median line both ureters could be catheterized without changing the position of the cystoscope. And one in which one opening was nearly in the median line, the other far to one side. There may be as great a variation in the long axis of the bladder, the openings being situated high up towards the fundus or low down upon the trigone. The ureters not being found along the trigone it is the work of but a few minutes to search in other positions for their location. It has been the technic of the writer in these cases to look in the high position before looking in the low, as pain is more likely to be felt by the patient with the tip of the cystoscope low down near the prostatic urethra.

CONCLUSIONS.

The writer wishes to draw the following conclusions:

1. That ureter catheterization is an indespensable procedure to the accurate diagnosis of many urinary diseases where surgical operation seems indicted.

2. That as a therapeutic measure, combined with irrigation thru the catheters many conditions of the kidney and pelvis can be cured without operation.

3. That ureter catheterization in the male by the technic and instrument described is not subject to the difficulties and impossibilities associated with former instruments.

4. That it is possible for all possessing desire, good eyesight and perseverance to learn this procedure, with no greater effort than is required to become expert in the performance of any major surgical operation, or in the use of any diagnostic apparatus used in medicine or surgery.

5. That no person should consider himself qualified to attempt catheterization of the ureters until he has mastered the fundamental study of cystoscopy.

6. That ureter catheterization is not followed by untoward effects, and that infection or injury of the ureters is practically unknown in the hands of those who are expert in the procedure.

## CAN THE MORTALITY-RATE OF APPENDICITIS BE REDUCED TO ZERO?*

By Frederic S. Dennis, M. D., LL. D., F. R. C. S., New York City.

Professor of Clinical Surgery in Medical Department of Cornell University.

The questions of greatest interest to the general practitioner probably are: what is the mortality-rate under non-operative treatment, what is the death-rate under present methods of surgical treatment and what does the future promise when all doctors shall recognize the disease at its outset and urge instant operation?

First—The mortality in appendicitis in all cases under purely medical treatment is about 16 per cent, with 30 per cent of relapses, while in diffuse suppurative peritonitis it is almost uniformly fatal.

Second—The mortality in appendicitis in all cases under surgical treatment is about 4 per cent, and with no relapses; and in diffuse suppurative peritonitis the mortality in publisht statistics is from 31 per cent, the lowest, to 91 per cent, the highest. In my own 11 consecutive cases of diffuse suppurative peritonitis the mortality was zero.

Ochsner has recently contributed some statistics from his more than 1,000 operations during one year, which reflect great credit upon his excellent work. In the acute cases there was a mortality of 3 per cent, and in the chronic cases there was a mortality of 1 per cent. In the entire number of cases, both acute and chronic, there was a mortality following the operation of 2 per cent. Deaver has also recently contributed some statistics from his own operations extending over a period of one year, which, likewise reflect great credit upon his surgical skill; in his cases of general diffuse peritonitis there was a mortality of 31 per cent; in his cases in which there was abscess there was a mortality of 12 per cent; in the cases in which the disease was confined to the appendix (with stricture, ulceration, and necrosis of the mucous membrane) there was a mortality

*Extract from address before the International Congress of Arts and Sciences at St. Louis, September, 1904.

of 0.8 per cent; and finally, in all the cases operated upon, the total mortality was 5 per cent. Richardson's publisht statistics are practically the same. The results of these various operators give an idea of what surgery has accomplisht.

In a study of the last 119 cases of appendicitis operated upon by myself up to April 1, 1903, the mortality of the disease irrespective of operation or any special plan of treatment, was a little over 1.5 per cent; in the cases treated without operation in which the attack was a mild, catarrhal one, and in which the patients were not operated upon during the attack, the mortality was zero. In this group of cases (in which conservatism was employed for special reasons), the appendix was in many cases subsequently removed owing to repeated attacks, and the mortality was zero. In the group of cases in which the appendix was gangrenous and had ruptured into the peritoneal cavity with a general peritonitis (of which there were 11 cases) the mortality was rezo. In cases in which there was an acute perforative appendicitis, and in which the appendix was gangrenous, and found in a circumscribed abscess cavity, the mortality was 7 per cent. If, now, in this group, all the operative cases are collected, both acute and chronic, the deathrate was 2 per cent. If the two fatal cases in the entire list of 119 cases are eliminated (which were hopeless from the start, but which were operated upon because it was offering the only possible chance of life, forlorn as the prospect was) the mortality of the disease was zero. **The mortality of the operation both for acute and chronic appendicitis was also zero,** but such cases as the two in which death occurred will always happen, and will always prevent the absence of mortality in the disease. In other words, if the two fatal cases are eliminated on the ground that surgery is powerless to save when complications such as empyema and abscess of the lung exist, the mortality in the medical and operative treatment of this disease in 117 consecutive cases was zero. The two deaths (which make the mortality of the operation in all cases about 2 per cent) were not to be attributed to the operation; but even if counted the mortality-rate is insignificant when the nature of the disease is considered.

Richardson, of Boston, reports 574 appendectomies in the interval, with no deaths. Mayo has had 1,668 cases in the interval, with two deaths, one from pneumonia secondary to an intercurrent attack of grip, and the other to surgical kidney following the use of catheter in an enlarged prostate.

## IS TYPHOID FEVER A SURGICAL DISEASE?

**By Emory Lanphear, M. D., Ph. D., St. Louis, Mo.**

Formerly Professor of Surgery in the St. Louis College of Physicians & Surgeons.

For years I have been convinced that the time is near when typhoid fever will be regarded as fully within the field of operative treatment as is appendicitis today. The technic of surgical treatment in expert hands presents no difficulty; the dangers are practically none; and the results—as yet purely problematical.

But the special points which impress me as indicative of surgical measures are first that death in a large proportion of cases is due to sepsis—a condition which can surely be eradicated by surgical treatment; second that the diseased area of intestine is strictly limited to so small a part as to be practically within the reach of the surgeon thru a cecal opening; third, that many deaths are caused by hemorrhage, which can be prevented by local measures; fourth, that the remaining deaths—from perforation—would probably be preventible by the treatment possible to be adopted by wide cecal incision; and fifth that the troublesome diarrhea could positively be controlled by daily irrigation of the bowel thru the opened cecum.

Let us consider for a moment the importance of this subject. In appendicitis (in which all surgeons now advocate operation at the earliest possible **safe** moment) the normal mortality rate is about 17 per cent (Dennis says 16 per cent, Fenger 18 per cent); in typhoid about 15 per cent.

Haggard states that 500,000 cases of typhoid fever occur in this country alone every year with a mortality of about 10 to 15 per cent. Thus 50,000 to 75,000 patients perish annually from this disease in this country alone—a frightful showing when compared with the very low death-rate from appendicitis under modern treatment in skilled hands.

On the question of perforation alone the figures are very suggestive. Dennis, in his address before the International Congress of Arts and Sciences (American Medicine) says: "Osler states that a third of the deaths in typhoid occur as a result of perforation and 'Taylor thus estimates that 25,000 deaths occur yearly from this accident. On a basis of a possible 30 per cent recovery by operative interference he further concludes that 7,500 persons perish in the United States each year who might be saved.' The mortality of perforation in typhoid is estimated by Murchison at 90 to 95 per cent, and Osler says that "he could not recall a single patient in his experience that had recovered after perforation had occurred." Harte has shown that the mortality has steadily decreast as earlier operations were performed and technic improved; thus in 277 cases in successive intervals was as follows:

| | Per Cent. |
|---|---|
| 1884 to 1889, 10 cases; mortality | 90.0 |
| 1890 to 1893, 16 " " | 87.5 |
| 1894 to 1898, 110 " " | 74.5 |
| 1899 to 1902, 141 " " | 66.6 |

But—why wait until perforation has occurred and the patient practically moribund from sepsis? By opening the cecum widely—much as is done in colostomy, but with a larger gut-incision—the affected area may be daily irrigated with thymol solution, the ulcerated surfaces toucht with silver nitrate thru an endoscope and by gentle tampcnade with iodoform gauze such constant drainage maintained as to carry off the poisonous secretions and allow the gas to pass away instead of remaining in the gut to cause dangerous distension.

In other locations of the body we treat acute ulcerative processes by direct antiseptic applications and perfect drainage. Why not so with Peyer's patches, particularly when they are so situated as to be easily and safely within the reach of the surgeons knife?

I would not be an advocate of such radical measures as excision of the entire affected area, with end-to-side anastomosis, as I once suggested at a meeting of the Kansas State Medical Society (altho even that is within the realm of safe surgery) but I do believe that the "open method" of treating typhoid is an operation that will be perfected and practist by many surgeons very soon.

In the matter of serious hemorrhage, too, the direct-drainage treatment would be of advantage. If the local treatment adopted did not altogether prevent the occurrence of serious hemorrhage the bleeding would be at once known instead of many hours later, as at present, and operative measures could be adopted if desired before the patient is **in articulo mortis.** Indeed it is within the field of possibility that, should the friends refuse operative treatment when they saw the blood saturating the dressings, the hemorrhage might in some instances be controlled by direct tamponade thru the cecal opening.

Finally, since the long duration of enteric fever usually depends upon the sepsis produced by Eberth's bacillus, the belief is not without reason that the disease would be greatly shortened by adoption of a method which affords perfect drainage as well as direct application of those remedies which we try to force to the field of local infection thru such a long and tortuous route: the entire small intestine.

As to the dangers of operative treatment: If the cecum be brought up into a large incision as soon as a diagnosis is certain from the Widal or other test, and carefully sutured to the parietal peritoneum, the mortality should be absolute zero in the hands of the experienced abdominal surgeon; two days later any "common doctor" can make a three-inch cut in the anterior surface of the bowel, and two days later any nurse can be giving the irrigation treatment. A skilled operator would be required to close the opening after the cure is complete.

## RADICAL CURE OF LOOSE CARTILAGE IN THE KNEE.*

**By Sir Alfred Fripp, F. R. C. S., London, England.**

Professor of Surgery in the Medical Graduates' College, London.

The treatment of loose or damaged semilunar cartilages falls naturally under the following classification:

1. **Immediate.** The indication is to replace the cartilage if "out," and to facilitate the absorption of any excess of synovial fluid and the regaining of any loss of mobility in the joint which may have resulted from the nipping and subsequent inflammation of the cartilage.

2. **Remote.** The chief indication is to prevent recurrence, and with this alone are we concerned today. The choice has to

*Abstract of Clinical Lecture in the Polyclinic.

be made between the employment of such palliative measures as the surgeon believes will hinder recurrence and the performance of an operation which will certainly prove radical. There are six measures to choose between—four palliative and two operative.

## IMMEDIATE INDICATIONS.

But before discussing them it is necessary to say that if synovitis is present, but is not accompanied by more impairment of mobility than is always found in distension or acute inflammation, whatever the cause, then all that is required is rest of the joint upon a well-fitting back splint, with the local application of either ice bags, elastic pressure, or some counter-irritant. I think there is nothing so efficacious for removing the fluid as a large blister around the upper three-quarters of the patella.

If, on the other hand, complete extension, or complete flexion, or both, are prevented to a degree which is altogether out of proportion to the amount of inflammation or distension, then the first indication is the manipulation of the joint, preferably under an anesthetic because it saves pain and because it relaxes the muscles, and so the capsule and the coronary ligaments which moor the cartilages. By this means the cartilage may, if only slightly displaced, be slipt back into its proper position, and the mechanical disability which resulted from its displacement will thus be removed. The first-mentioned indications can then be carried out, and, as soon as the fluid had almost disappeared, the surgeon should remove the splint each day and carry out a few very gentle passive movements. When all symptoms of synovitis have subsided, the passive movements of pure flexion and extension should be daily increast in range and in force until the mobility of the joint becomes normal.

## REMOTE INDICATIONS.

In the endeavor to prevent recurrence four palliative courses are open to us, and will be briefly alluded to before we consider in detail the two operations which may be said to constitute the "radical cure."

1. There can, I think, be little doubt that, just as in appendicitis, so in "internal derangement," some patients who have had one attack have the good luck never to get a second. The wearing of an elastic support, either in the form of a knee-cap or a Martin's or other bandage, is commonly considered to conduce to this happy result, but, personally, I do not think that such an application, unless indeed it is tight enough or thick enough to almost prevent flexion, can influence the movements at the knee-joint sufficiently to hinder directly the recurrence of the displacement of the cartilage; so that I regard such a course rather as "trusting to luck" than as a definite line of treatment.

2. The application of massage and passive movements. It is claimed by some that the "ligaments and leaders" may by this means be tightened up. I must confess that I do not understand how this result is to be explained, but certainly whatever the explanation, the fact remains that in some hands, well-skilled in the practice of such manipulations, certain cases which previously relapst inveterately have thenceforward appeared to be cured of the liability to do so. In many cases the injury is of a nature which could not possibly be benefited by such treatment, nor do I know whether those cases that have been claimed as cures have frequently remained permanently cured; certainly they have not always done so; nor do I know how many of them may not be cases of a class (certainly not rare) in which the attacks have gradually become less and less severe until at last they are hardly noticed by the patient. The frequent nipping has then, I suppose, resulted in a thinning of the convex margin of the cartilage, and possibly in addition the synovial membrane has establisht some degree of toleration, such as the peritoneum may apparently do after repeated slight attacks of inflammation.

The wearing of a splint is without doubt beneficial to some cases. In my opinion there are only two splints in which any reliance can be placed. They are:

3. Some form of straight splint, which by securing the knee in an extended position prevents all movements in the joint, and so renders it impossible for the cartilage to slip as long as the splint is worn; and

4. The well known, light, metal appliance consisting of an upper piece grasping the lower third of the thigh, a lower piece grasping the upper third of the leg, with inner and outer vertical rods connecting the two and hinged opposite the joint, so that when properly in position there is no impediment to flexion and extension. It is claimed that by means of padded metal pieces attacht to the leg piece and pressing upon each side of the head of the tibia, rotation is prevented or curtailed. This is more expensive than a straight splint, it requires more skill in manufacture, more attention, and more frequent renewal, and it is also somewhat heavier; but it has the enormous advantage that it does not interfere with flexion and extension. Tho it seems difficult to find any adequate explanation, the fact remains that in not a few cases this appliance does effectually prevent the recurrence of attacks as long as it is worn. The patient who decides to give it a trial should learn to maintain always a stiff knee when without the splint, e. g., while bathing and dressing, and even while in bed, or, at least, to straighten the leg before executing any movement in the limb which might entail rotation in the joint, e. g., turning over in bed.

## OPERATIVE TREATMENT.

We come now to operation, and let me say at once that this must never be undertaken while any signs of acute inflammation remain, but rather, as in relapsing appendicitis, it should be done in the quiescent interval between the attacks.

We have the choice of two procedures:

(a) Stitching the cartilage in its proper place; or

(b) Excising a considerable part of it.

I think the former should be abandoned for the following reasons: (1) It is extremely difficult to do thoroly. (2) It necessitates the burying of silk or other more or less permanent suture-material under circumstances which are not the most conducive to its quiescent encapsulation. I allude to the fact that neither the capsule proper nor the fibro-cartilage is well supplied with blood, and that the sutures will be perpetually dragged upon as soon as the muscles which move the knee-joint are brought into use again. (3) It is not radical; the effect is not permanent; it seems hardly rational to expect it to be when one considers the enormous leverage with which these cartilages are impelled to take part in the movement of the joint. I have come across cases in which after its successful performance the displacement has recurred in course of time, and this (even if the interval has been as much as twelve years, as it was in one case) is very disappointing to the patient. (4) In two conditions of the cartilage frequently met with, namely, longitudinal splitting and complete displacement into the intercondyloid notch, it is literally impossible to do it—unless indeed you first divide the lateral ligament, and that I hold to be an unjustifiable step in this operation. (5) The knee-joint does not miss the cartilage if it is removed in a proper way. I, therefore, now always remove the cartilage if operation is indicated.

**Excision.** In excising a considerable part of it I never attempt to remove more than can be reacht without fear of damage to the lateral ligament or to the articular cartilage, both of which injuries are liable to be inflicted to the lasting detriment of the joint if an attempt is made to separate the semilunar from its posterior attachments by means of the scalpel or scissors working out of sight. Some surgeons do not hesitate to divide the internal lateral ligament by means of a free transverse incision, but this appears to me to be both unnecessary and harmful.

The chief indication for operation is the occurrence and recurrence of attacks causing sufficient pain and subsequent discomfort to materially inconvenience the patient and interfere with the proper enjoyment of active life, and especially if the individual spends his life under such conditions that any one of these attacks may, by throwing him suddenly down, incur risk of life or limb, or of loss of employment (e. g., builders, engineers, soldiers or sailors).

**Contra-indications.** Contra-indications are such circumstances of age, constitutional condition, and surroundings during and after the operation, as prejudice the chance of any important wound running a perfectly healthy course. So far as my own experience goes, I should indeed be inclined to say that given a healthy individual, and the possibility of operating under thoroly adequate circumstances, the only objections to the operation are the two that alone can be said to remain valid against the modern interval operation upon the appendix, viz., the inconvenience, discomfort, annoyance and alarm on the one hand, and on the other the expense, and I believe that in the long run the sum total of these is greater to the individual if he is treated by any other method.

Coming now to the operation itself, I propose to mention in some detail the points which seem to me essential, and putting them as nearly as possible in the order in which they arise, we have:

**Preparation of the Patient.** As already stated, any synovitis which may have been caused by the last attack must have subsided before arrangements are made for the operation. The

patient rests in bed for twenty-four hours, or preferably for two or three days. If he likes to take a Turkish bath during this period, so much the better. Twenty-four hours before the operation the leg is shaved from the groin to the ankle, and then compresst with 1 per cent lysol solution. The compress is renewed in twelve hours. An anesthetic is administered (ether, because of the engorgement of the superficial vessels, is the least desirable). As soon as the patient is unconscious, the compress is removed, the limb is raised off the table by a nurse holding the foot, and is vigorously scrubbed with lysol, 1 per cent solution (with an aseptic brush) for a good six inches above and below the joint, and all round the limb. A sterilized towel is wrapt round the foot (over the nurse's hand) and round the leg up to the tubercle of the tibia, and secured by means of a sterilized bandage, the nurse removing her hand from under the towel as soon as the cleaned hand of an assistant has grasp the outside of it. Another sterilized towel is similarly bandaged round the thigh. The foot is threaded thru a hole in a large sterilized towel, and the hole is made, by means of a clip, to accurately fit round the thigh. We thus have the entire limb, except the actual area of operation, envelopt in sterilized cloths and lying upon a larger one which covers the table and the rest of the trunk, so that the limb is quite free. Flexion, extension and rotation at the knee joint can then be carried out with ease by the surgeon of the assistant during the operation without any possibility of disarranging the cloths and so endangering the cleanliness of the field of operation.

**Instruments.** The instruments and dressings required are: One rather narrow-bladed scalpel, one dissecting forceps, six pressure forceps, one strong volsellum forceps, one strong scissors curved on the flat, with rather narrow blades, eight fully-curved cutting needles of medium size, four salmon-gut sutures of the thickest and roundest variety, twelve swabs; a piece of drainage-tube the size of an ordinary lead-pencil, four inches long, with fairly thick walls and windows every one-half inch, with a safety-pin put transversely thru (but not across) the lumen of, the tube at one end; an assortment of pads of various sizes up to twelve inches square; ordinary strong, rolled bandages; abundance of plain, absorbent cotton wool; all thoroly sterilized by heat.

**Technic.** Whichever limb is to be operated upon the surgeon stands on the patient's right and the assistant opposite to him bends the knee thru half a right-angle. The surgeon feels with his left thumb the interval between the condyle of the femur and the head of the tibia and makes an incision one inch long half way between the border of the ligamentum patellae and the lateral ligament, cutting at once, and irrespective of hemorrhage, thru skin, subcutaneous tissue and capsule. The wound is longitudinal to the limb and ends below at the edge of the head of the tibia.

One or more large vessels are cut across and bleed sharply, they and the capsule are clipt in each lip of the wound with pressure forceps, which also act as retractors. If the first incision has not gone thru synovial membrane, the wound is now deepened with scissors or scalpel until the joint is opened and synovial fluid escapes. Any but sharp hemorrhage is ignored, but a considerable spurting artery is nipt with pressure forceps. The assistant now holds the wound open by means of the pressure forceps, readjusted if necessary so as to include the synovial membrane, while the surgeon further flexes the knee and rotates the leg (inwards in the more usual case of an internal cartilage) in order to bring the semilunar cartilage towards the surface, and therefore into view. Whether it is actually displaced at the moment or not, it is at once seized near its anterior extremity by means of the volsellum, the anterior cornu is pulled upon from behind and is divided as close to its anterior attachment as it can be seen. The direction of traction is then altered, so that the cartilage is pulled forwards and towards the wound with considerable force. If at this moment the tibia rotated first in one direction and then in the other more of the cartilage is brought into view, and sometimes the entire structure is dislocated into the interior of the joint—i. e., towards the crucial ligaments. Considerable traction is exerted. Any fibres of the coronary ligament which resist are divided with the scissors and the cartilage is very carefully cut across posteriorly with the scalpel as far back as it can be seen, great care being taken to avoid injury to the articular cartilage or to the other ligaments, and no attempt being made to reach its posterior attachment. In most cases I find that I do not remove more than a large half or possibly two-thirds of the structure. Any spurting blood-vessels are twisted. The leg is brought down to the extended position and the salmon-gut stitches are inserted so as to take up in succession all of the structures in the wound. The putting of a finger, however clean, into the joint for any purpose whatever—routine, curiosity, investigation or assistance—is most strongly to be deprecated, for that way danger lies. No silk or other foreign body should be buried either as ligature or suture.

Each salmon-gut stitch has a needle at both ends so that each puncture is made from the synovial membrane, thru the capsule and out thru the skin and not in the opposite direction. By this means risk of any needle carrying in infection from the skin is avoided. Mr. Wrench suggested this not unimportant detail while he was acting as my house surgeon. The first-inserted stitch accurately divides the wound into an upper and a lower half, one or two stitches are then put below this, and one above, leaving the upper quarter of the wound, thru which the drainage tube is now thrust by means of a pair of forceps, so that it lies in the joint as high as the upper border of the patella. The stitches are tied quite loosely.

The leg being then grasp in the right hand, the joint is flext and extended two or three times, while the left hand makes pressure on the supra-patellar pouch; by this means the blood in the joint is evacuated thru and beside the tube, and pressure is maintained by the assistant's right hand upon the supra-patellar pouch until the bandage is put on. A sterilized pad, 12x12 inches, is placed with its center over the wound, and several other pads are superimposed, so that the bandage, which is put on very tightly, exerts firm, elastic pressure on the joint. Under the large pad I arrange a smaller pad on each side of the drainage tube, so as to keep the pressure of the bandage from occluding it, and this, I think, conduces to the freedom of drainage. Plenty of absorbent cotton or wool is superimposed and bandaged lightly. The actual operation only occupies a few minutes. The patient is put back to bed with the leg well raised on a wedge pillow, and two ice bags hang from the cradle, one to rest against each side of the knee. No splint is used.

**After-Treatment.** If there is much pain after consciousness has quite returned, a small hypodermic injection of one-sixth grain of morphine is given—usually one is required in the first few hours. Twenty-four to forty-eight hours after the operation the first dressing is done, with rigid precautions against soiling. If the patient is fairly comfortable I prefer to wait for forty-eight hours. If the tight bandage causes no pain and no sign of congestion in the leg below, I consider it has not been applied quite as tightly as it should have been. I feel sure that the greater the degree of pressure the patient can stand the less will be the tendency for fluid to collect in the joint. If, however, the bandage is applied just a degree too tight, the engorgement of the veins will result in edema, and if this is considerable there will be much pain (in the leg rather than in the knee), and in such case I generally do the dressing early instead of late in the second twenty-four hours. The relief of pain is immediate, and the patient gets a good second night without morphine. Considerable blood-stain of the dressings shows that the tube has done its work well. It is removed at the first dressing by a steady, strong pull—the patient having been warned to expect sharp but quite temporary pain for a minute or two. Gentle compression and massage of the supra-patellar pouch is practist for a minute or two. This, if carefully done, causes no pain, and it not infrequently expels an ounce or more of blood and serum, for usually the tube is found to be blockt by a clot after about twenty-four hours. As soon as massage ceases to expel any fluid the wound is covered with the fresh dressing, and before the bandage is applied very slow flexion and extension thro a few degrees are carried out, once only, the greatest care being taken to avoid even the very slightest jarring either now or at any time during the dressing. The best way to make the necessary movement is to put one hand under the popliteal space while the other hand steadies the ankle, and to raise the knee an inch or two from the horizontal bed. The bandage is reapplied much less tightly, and with the joint in a very slightly flext position, because more comfortable than the completely extended one; over it is wound a Martin's bandage, a small pillow is put under the knee, and the ice bags are reapplied until the end of the third or fourth day. Sometimes it is found that swinging the whole limb in a Salter's cradle gives comfort. About this time, i. e., on the second or third day, the temperature not infrequently goes up to 100° F. or even to 101°, but in the absence of continued and increasing pain, swelling and general malaise, this or even a higher degree of pyrexia need give rise to no anxiety. The highest I have seen the temperature rise to is 102⅘° F.

An effectual aperient is given early, usually at the end of thirty-six or forty-eight hours, and subsequently a small dose of laxative every evening, followed, if necessary, each morning by a saline, so as to secure a regular daily evacuation. The patient is from the first encouraged to transfer himself from the bed to the night stool with the aid of the sound limb upon the ground, and thereby he gets accustomed to slight movement in the joint which has been operated on. Most of my patients transfer them-

selves from bed to chair or couch and back again on the third or even the second day without difficulty.

Every subsequent day the Martin's bandage is removed, flexion and extension are carried out by the surgeon to an ever-increasing extent, and the elastic is reapplied in such a manner as to exert the maximum of pressure from just above the tubercle of the tibia to the top of the supra-patellar pouch, with the minimum of discomfort. The patient is encouraged to sit part of the day in a chair with the foot up, and to vary the position in which he rests his leg. This early movement prevents even the slightest adhesions from forming in the joint, just as early massage of the muscles will prevent their wasting or getting "crampt."

By the third, fourth or fifth day he is expected to support himself erect with the help of one or two sticks, and to just touch the ground with the heel of the bad leg, the knee being kept extended meanwhile. From this time forward he daily puts more weight upon it and rapidly regains his power of locomotion. He is taught how to apply the Martin's bandage for himself, so that he may maintain the greatest amount of elastic pressure which is compatible with comfort and with an absence of swelling of the foot. He still keeps his foot up for most of the twenty-four hours.

The stitches are removed about the eighth or tenth day (an intermediate dressing having been done only if pain or discomfort has indicated an examination of the joint). The stitches will usually be found to have embedded themselves in the skin, an indication I take it of the degree of pressure to which they have been subjected by the tight bandaging. A gauze dressing, sealed with collodion, is then put on, and the elastic pressure is maintained by means of the Martin's bandage, in the application of which over a gamgee tissue pad the patient should by now be an adept.

By the fourteenth day he should be bending the joint to a right angle (i. e., the heel should touch the sound patella) and walking easily and strongly without help or at most with one stick. Any time after that he is allowed to go home. The Martin's bandage is worn for another month at least, but is removed twice daily for the regular practice of gradually increasing forced movements. He is kept under supervision for this period in case of the appearance of any tendency to the collection of synovial fluid or of the persistence of any stiffness of the joint or weakness and wasting of the muscles, and, if necessary, a few visits from a masseur, who also gives active movements against resistance, may be ordered during this period.

In the case of a patient in whose discretion I have not confidence, I order a light straight back splint to be worn outside the Martin's bandage for a month, so that the joint is protected from strain, except when he takes it off while lying down once or twice in each twenty-four hours for the purpose of deliberate movement of the joint.

### CONCLUSIONS.

The points which I consider essential in the actual performance of this operation (and, indeed, they apply to almost all operations on large joints) and in the after-treatment, may be summarized thus: (a) The proper selection of cases and of time for operation; (b) Proper preparation; (c) The absolute avoidance of putting a finger or anything which has not been thoroly sterilized by heat into the joint; (d) The exercise of gentleness as well as of cleanliness; (e) Temporary drainage, not because of any fear of sepsis, but simply because the accumulation of fluid in a joint or in any large cavity, is one of those complications which, like shock, undesirable adhesions and constipation, the surgeon will find it much better to prevent than to cure; (f) Tight bandaging over a copious dressing, also to prevent, or at least to control, effusion; (g) Early movement, i. e., on the second day, to prevent the formation of any adhesions whatever, and its daily increase so that a right angle is reacht in a fortnight or less, and complete mobility in the third or fourth week; increase of fluid in the joint is the only symptom which makes me delay the increase of movement; (h) The maintenance of elastic pressure upon the capsule for a month or more, according to the nature of the exercise to which it is proposed to subject the joint.

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### Sex Feeling After Hysterectomy.

Vineberg (says New York Medical Journal) discusses the effect on the sexual function of hysterectomy performed on the adult woman. It is nil. "The conclusion I would draw from my own experience and from a study of the literature on the subject is that whatever other effects the removal of the uterus and ovaries may have upon the female human economy, it has little or none upon her sexual feelings."

**Journal of American Surgery and Gynecology**

—EDITED BY—

**EMORY LANPHEAR, M.D., Ph.D., LL.D.**

Chief Surgeon of the Woman's Hospital Association of the State of Missouri St. Louis.

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ST. LOUIS, MARCH, 1905.

## EDITORIAL NOTES.

### The Crime of Foot-ball.

American Medicine has, very properly, condemned "Rugby" as a most typical reversion toward the savage state. It now quotes Prof. Burt G. Wilder, of Cornell University, who has been strongly opposed to intercollegiate foot-ball games and in favor of intracollegiate foot-ball, as saying: Some day the national sense of humor will vie with mortification over the record that our universities were once known most widely thru the prowess and mishaps of a few score foot-ball champions. For the most part those men were intended by nature and environment for simple and useful lives as students and citizens. They were endowed with the strength and activity that daily moderate exercise would maintain as the most perfect basis for mental work. Yet they were persuaded that the honor of the university called upon them to be excused from constant attendance and regular duties as if in the public service; to be suspected as to their eligibility; fed at double rates; trained to the verge of "staleness;" portrayed more often than college presidents; wagered upon like race-horses; transported like millionaires, panoplied like medieval knights; bathed and rubbed like cripples; attended by surgeons like duellists; nay, if experts are to be credited, occasionally disabled by methods as unfair and cowardly as those of the savage and the assassin. The university that shall first restrict foot-ball to its own members and grounds and abolish gate receipts, may lose some income and a few nominal students; but posterity will award it honor higher than for any other corporate achievement.

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### Distrust of Doctors.

Under this heading the editor of the New York Evening Post pays a tribute to the medical profession unexpectedly frank and true. He says: Side by side with the immense development and authority of modern medicine, one encounters strange signs of revolt against its claims and its practices. The chief is, of course, the vast revival of superstition lurking behind the great vogue of Christian science and "mental healing" of various kinds. At the very moment when the physician seems most absolute; when thousands of people in every city are all the while submitting to capital operations at the surgeon's word, and millions are guiding their daily lives, in sickness and in health, by doctor's advice; when the germ theory of disease and serum therapy and kindred discoveries and investigations are giving medicine more and more the air of an exact science—multitudes are found to reject it altogether. Many of them are, no doubt, a little queer in the head; others are carried away by enthusiasm or fanaticism. Yet their numbers are growing; and, whatever their minor differences or vagaries of belief, they are all agreed that the thing to do is to throw physic to the dogs. The whole phenomenon is a suggestive reminder that the conquests of science are precarious. As the forest forever encroaches upon the cleared field, so do lingering savage beliefs tend to reassert themselves in the age that boasts itself most enlightened. Such crude denial of fact and rejection of experience do not, however, make up the whole case of the distrust of doctors. Much skepticism about medicine goes only

half way; the general principle is accepted, but specific applications are called in question. Scientific niceties always find scant favor with the rule-of-thumb men, and nowhere are people more inclined to employ the rule of thumb than in matters of health and disease. We know that a given water does not harm us, so what is the use of a doctor's telling us to boil it? Even health officers have been known to regard some of the finest demonstrations of medical science as pure whimsies. Only recently in a large city of England the medical man in charge of public health was heard openly to sneer at the germ theory of disease as a mere fantasy of fussy microscopists. It was not for him to order precautions based upon absurd speculations about what he called "those pollywog things." Doctors have also suffered an abatement of respect from people of a certain order of mind, precisely because in modern times, medicine has become less of an art and more of a science. With the disappearance of the bigwig mystery of other days, concealing, as it often did, corpulent ignorance, has gone something of the awe with which the physician was regarded by the commonalty. It is hard for us moderns to image to ourselves medecins like those at whom Moliere and Montaigne levelled their witticisms and sarcasms, but undoubtedly the oracular manner of those gentlemen did much to impress the vulgar. With the dissipated mystery has gone the wondering admiration. It is, perhaps, the exception when a patient likes to be taken into the confidence of the physician, after the manner of Lydgate in "Middlemarch," arousing the sick man's proud interest in the "expectant treatment" of his pneumonia. Most people prefer wise looks and secrecy in their doctors. To say exactly what drug is prescribed, and precisely how it is expected to work (with the frank warning that perhaps it won't), may be admirable candor, but is often bad professional tactics. We all love magic, even in our science; and to be cured without any mystery about it is as distasteful to us as it was disgusting to the great one of Syria to be told by the prophet simply to dip in the Jordan to be quit of his leprosy. The distrust we speak of is usually more of the medical profession, impersonally, than of individual members of it. How grudgingly is medical inspection of schools provided for and paid for; what shabby treatment has been meted out to the profession in various ways in connection with military service! These grasping fellows, the argument seems to run, are all the while making an outcry about unhygienic conditions in the public schools, and about the need of sanitation in the army, just to magnify their office and get themselves jobs. Yet this spirit goes hand in hand with the perception that the medical profession is the most ruthlessly exploited of all. No one thinks of going to a lawyer or engineer or architect without his fee; yet doctors are supposed to be under a moral obligation to give their services freely to the ill and injured. This they do, to their honor, relieving pain and suffering by the expenditure of their time and skill, often with no hope or possibility of payment. Yet their protests against perils to the general health are frequently resented, and treated as the selfishness of a profession aiming to thrust itself in everywhere. This is an attitude of mind really as bewildering as outright superstition. It is puzzling to find distrust provoked by what is really the crowning proof of disinterestedness; since, as it has been said, the devotion of the medical profession to the cause of public health is really a way of making its own extinction its final goal.

### "Southern Medicine" on the A. M. A.

Dr. William Edwards Fitch, editor of Southern Medicine, in the February number of his excellent journal, says: The small coterie which dictates the affairs of the American Medicine Association are offering the medical profession of this country a great wooden horse in the shape of what is termed "The Reorganization Plan of the American Medical Association," which means that the doctor shall join the County Society, the State Society and the American Medical Association, the last of which he will in all probability never attend. This great gift—the "Reorganizaton Plan"—is lookt upon by those who are "on" as a grand, treacherous political movement, which we fear will not redound to the welfare of the entire profession. The writer of this editorial was present at a dinner in New York City during the summer of 1900 when this deep-laid scheme was unfolded by two of the leaders of this coterie, who are still powers behind the throne. To the careful observer of things medical, and to one who has closely watcht this "reorganization plan" unfold, it appears as if the ultimate aim of the present managers of the American Medical Association is "unionizing" of the medical profession! The present organization of the "parent" American Medical Association is said to be paterned after the organization of the United States government. But this is a misstatement of facts, since each State, as well as the National Government, has a balancing power in the form of its Senates as well as Houses of Representatives or Delegates. Above these, the President of the National Government, as also the Governors of each State, are vested with a veto power to further safeguard legislative enactments of Congress or General Assemblies. So that the simile is not well made in comparing the new organization of the American Medical Association to the Congress of the United States or the Legislatures of States. In union parlance members of county medical societies are "scabs" unless they adopt, without question, the dictation of the superior body, and the county societies must have their charters from the state societies in order to be regular; no matter how ethical the personnel of a county society may be, however pure its membership and however high its aims, if it does not obey the orders of the state society, then in union parlance its members are scabs, with all the bitterness the word implies in the great centers of unionism.

### Advertising in the Journal of the A. M. A.

Phillip Mills Jones, of the California State Medical Journal, keeps pounding away on the subject, saying some very clever things in a very fetching way. Thus, under the heading "Facetious Criticism," he says: "It was with no little surprise and a good deal of pleasure that we noted in the Journal of the New York Medical Association the editorial publisht in our August number, concerning the beautiful way in which the trustees of the American Medical Association have composed their financial statement. It seemed hardly probable that another state journal in the country would have the courage to print or comment on the matter we publisht. As a further matter of fact, there are a good many members of the association who do not particularly care to invest $3.50 a year in Chicago school bonds, or Chicago real estate, which does them nor anybody else any good. The members of the association are paying into its treasury something like $40,000 a year more than it needs; they are paying enough to enable the trustees to provide them with not alone the best journal in the country, but also with one which does not, in every issue make a laughing stock of the principles of ethics to which every member of the association has subscribed. The Publication Committee is advised that one member of the trustees looks upon the article printed in August on this subject as facetious. There is nothing facetious about it. There is not the slightest bit of facetiousness about the grafting that is being workt upon the medical profession thru its complacence and with the paid-for assistance of the medical journals, including the 'biggest advertising medium for proprietary remedies in the country—the Journal A. M. A. Every issue tends to debauch the mind of some of its members; it recommends to them all to make use of or prescribe secret remedies; it uses $15,000 (about) of the dues paid in by the members of the association to help in its work of 'promoting the use of secret remedies.' The trustees of the A. M. A., who are responsible, may think this is facetious, but some day they will awake to the fact that they had a good, long, complacent, pipe-dream. Their contention that it is not possible to determine which ads. are ethical and which are not, is simply absurd, puerile and idiotic. Let them answer these simple questions: Is it a medicine? Is the composition of this stuff known to the doctor who is askt to prescribe or use it? Are the advertising statements made within the truth? Is it advertised to the laity? In answering the second question it is not simply necessary that the composition shall be known to the editor, or the trustees, or the manufacturer, or to some other irresponsible person or persons; does the doctor who prescribes the stuff know exactly what his patient is going to take? Facetious! Heaven save the mark!" Query: How would it do to leave the successful editor, Dr. Geo. H. Simmons, in charge of the literary department, and elect Dr. Phillip Mills Jones business manager of the Journal of the American Medical Association?

### Christian Science and Suggestion.

Dr. Herbert Parkyn, author of a very excellent book on Suggestion, in concluding a recent article on Christian Science, says: After thirteen years' experience with suggestive therapeutics, in which I have received over ten thousand patients for treatment; after ten years' observation of Christian Science as a religion and system of healing; after witnessing the results of Christian Science in hundreds of cases, and after making a

careful study of Christian Science, I have no hesitation in publishing the results of my research and the conclusions to be drawn from them. (1) The percentage of cures among people who seek treatment by suggestive therapeutics is far greater than the percentage of cures made among people who seek Christian Science treatment. (2) The percentage of deaths under Christian Science treatment is greater than under suggestive therapeutic treatment. (3) Under suggestive treatment results can be duplicated and repeated with certainty in similar cases—something that can not be accomplisht by Christian Science. (4) Patients healed by suggestive therapeutics are not prone to relapses like patients treated by Christian Science. (5) The cases that are made by Christian Science are really made by Suggestive Therapeutics, unintelligently, unwittingly and unscientifically employed. (6) Suggestion is one of the natural forces of the universe, given to man by a superior intelligence to be employed for the education, uplifting and healing of man of every race and color the world over; that thru it man might " have dominion over the fish of the sea and over the fowl of the air and over every living thing that moveth on the earth." In fact, "suggestion moves the world." I don't believe that Mrs. Eddy, even in her wildest flights of imagination, ever thought or expected that Christian Science would ever be anything more than a system of healing; but her followers who have been healed by it, not realizing that a simple attribute of their own minds is the source of all the healing powers manifested in or credited to Christian Science, have gradually made a religion out of it, because it appeared to them to be "a way that seemeth right."

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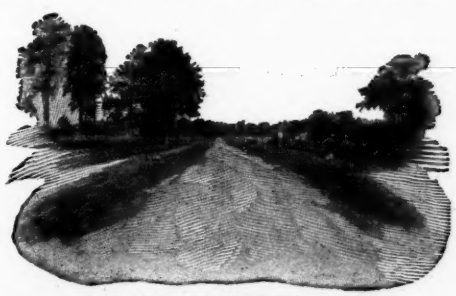
### Post-Operative Treatment.

Surgeons, and especially those who do much gynecological work, often are at a loss where to send patients just at that particular period of convalescence when it is desirable to have them leave the hospital and yet not advisable to let them return to their domestic cares. A place where much out-door life is possible even in midwinter is preferable; and such is to be found at Citronelle, Ala. This place is not so well known to

"OUT-DOOR LIFE."

the profession of the Mississippi Valley as its merits deserve, altho it is easily reachable in a few hours over the Mobile and Ohio railroad from every part of the West and South.



"A PLEASANT COUNTRY DRIVE."

No one else so well as the surgeon knows the advantages to be derived from the out-door life in cases of tuberculous character, especially after operative treatment. The beautiful yellow-pine forests at Citronelle afford the very nearest approach to the ideal life so advisable for those subject to tuberculosis,

"A CONVALESCENT'S COTTAGE."

as under the protecting branches of these huge trees the patient may if he so desires pass almost or all of the twenty-four hours out of doors. To the neurasthenic the quiet out-door life, the balmy breezes of the Gulf (shorn of their objectionable moisture by the miles of sand between the sea and the health-resort) and

"THE TRANQUIL LIFE."

the balsamic odors bring sweet content; and with the tranquility thus secured renewed interest in the affairs of life is aroused. Sweet sleep soon soothes the secret soreness of the soul—to put it alliteratively; and under its cheering influence and the happy surroundings life very quickly again becomes worth the living.

But it is not only the excellent climate and the cheerful outdoor life that bring content, the waters drunk have restorative properties. Analysis of the water generally used at Citronelle, shows the following composition:

Analysis of water from Middleton Springs, Citronelle, Ala., by R. S. Hodges, Analyst, University Alabama:

| | | | |
|---|---|---|---|
| Silica | 0.0179 | Gms. per | Liter. |
| Sulphur Trioxide | 0.0018 | " | " |
| Chlorine | 0.0035 | " | " |
| Iron | 0.0126 | " | " |
| Aluminum | 0.0008 | " | " |
| Calcium | 0.0030 | " | " |
| Magnesium | 0.0011 | " | " |
| Potassium | 0.0009 | " | " |
| Sodium | 0.0040 | " | " |

Then for the anemic one—the one who has lost much blood at the hands of the surgeon there is a pleasant chalybeate water having this composition:

| | | | |
|---|---|---|---|
| Potassium Nitrate, $K NO_3$ | .04 | Gr. per | U. S. Gal. |
| Potassium Chloride, K Cl | .09 | " | " |
| Sodium Chloride, Na Cl | .26 | " | " |
| Sodium Sulphate, $Na_2 SO_4$ | .11 | " | " |
| Magnesium Sulphate, $Mg SO_4$ | .01 | " | " |
| Magnesium Carbonate, $Mg CO_3$ | .09 | " | " |
| Calcium Carbonate, $Ca CO_3$ | .09 | " | " |
| Iron Carbonate, $Fe CO_3$ | .5 | " | " |
| Alumina, $Al_2 O_3$ | .09 | " | " |
| Silica, $Si O_2$ | .23 | " | " |
| Total Mineral Matters | 1.51 | Gr. per | U. S. Gal. |

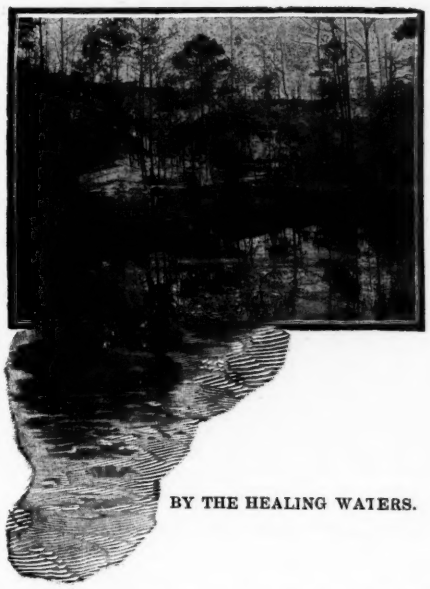
As Professor Palmer observes the water is remarkably free from mineral matters, and is, therefore, extremely **soft.** Most of the mineral ingredients are such as are contained in all ordi-

YELLOW PINE FORESTS.

IN THE GOOD OLD WINTER TIME.

nary waters, tho usually in much greater quantities. The carbonate of iron is the only constituent which in this case is present in considerable amount, and the quantity is such as to impart to the water markt tonic and medical properties.

Drinking these waters and roaming beneath the silent Southern pines is it any wonder that the bloom of health is soon restored to the cheek of the convalescent? Besides there is now pleasant companionship and every "sport" the sickly one can enjoy. Tennis, croquet, bowling, pool, shooting, riding, driving, base ball, fishing, hunting, all find their ardent devotees. In addition to all its other advantages, Citronelle will this year offer its guests the advantages of the best Chautauqua program ever given in the South. This new enterprise has been launcht under the most favorable of auspices by the Citronelle Chautauqua Association, composed of representative citizens of Southern Alabama and Mississippi. Altogether the place is most cheerful and I cannot too strongly recommend it as a lovely place to which to send patients in need of out-door life and cheerful surroundings.



BY THE HEALING WATERS.

Even the jaded doctor himself may find here pleasant relaxation from the strenuous life he is forced to lead at home; if you don't believe it, try it.

## MINOR NOTES.

**Prof. Manley Dead.**—Dr. Thomas H. Manley, of New York, one of the founders of the New York Clinical School of Medicine and for many years its professor of surgery, is dead, of pneumonia. He was soon to have issued a most complete work upon practise of surgery. No writer in America—Byron Robinson alone excepted—has written so many articles for the medical press of late years; so his death will be regretted from the Atlantic to the Pacific.

**Gonococcus Sterility.**—The birth-rate in the German Empire is steadily going down—more so in Berlin and Hamburg than in some of the south German towns. In the first named it has fallen since the seventies from 47 per 1,000 to 25.

**Who Would Have Thought It?**—The Dietetic and Hygienic Gazette—formidable sounding title—is authority for the statement that "if a wound has been made by any poisonous, rusty iron or steel, inflammation may be allayed and lockjaw, mortification, etc., often prevented by holding the wound over the smoke of burning wood previously saturated with sweet oil or lard." Creosote, eh—Well—maybe!

**Truth and the Doctor.**—Horace Mann once made use of an expression unusually applicable to the duty of a doctor: "You need not tell all the truth unless to those who have a right to know it all. But let all you tell be the truth."

**Fitch's Epigrams.**—Southern Medicine each month prints a number of epigrammatic sayings. A late one is: "Give me a man with a strong back and heavy burden rather than a weak back and caddy to carry life's luggage." Sounds very much like Elbert Hubbard. Is the South to have a Fra Elbertus?

**Winnipeg Hospital.**—Dr. A. M. Campbell has been appointed superintendent of the Winnipeg General Hospital in succession to Dr. Halpenny, who has taken up private practice.

**Portland's Baths.**—it will cost $2.00 for a bath at the meeting of the American Medical Association at Portland next summer. The publisht rates are $4.00 a day for a room without a bath and $6.00 a day for room with bath. Hot water must be scarce in Portland.

**New Post-Graduate School.**—Toledo, Ohio, is to have a post-graduate medical school. Drs. Herbert E. Noble, Addison D. Hobart, A. C. White, G. Albert Gorsuch, and Alvin G. Snyder, signed the application for incorporation.

**Hon. Michael Sullivan Resigns.**—Dr. Michael Sullivan has resigned from the professorship of surgery in the medical faculty of Queen's University, Kingston, Ontario. Fifty years ago Dr. Sullivan entered the medical school at the time of its foundation, and he has been connected with it ever since as tutor, lecturer, and professor. He will be appointed honorary professor of surgery.

## LITERARY NOTES.

### Friendly Comment.

Brother Mastin, of the Critique, throws the following bouquet at this journal: "Dr. Emory Lanphear's American Journal of Surgery and Gynecology, notwithstanding its eccentric orthography—'voucht for by the most prominent educators of this country, and recommended for general adoption'—is one of the handsomest and best edited journals which reaches this office;" which is the more appreciated because the versatile editor of the Critique is capable of judging.

### Fitch in Literature.

Another doctor has entered the field of general literature, Dr. William Edwards Fitch, editor of Southern Medicine, has written a book called "Some Neglected History of North Carolina," including the Battle of Alamance, the first battle of the American Revolution. 8 vo. pp. 308; fully illustrated; price, $2.00. Neale Publishing Co., Broadway, Fifth avenue and Twenty-third street, New York.

### Draper's Text-Book of Legal Medicine.

A Text-Book of Legal Medicine. By Frank Winthrop Draper, A. M., M. D., Professor of Legal Medicine in Harvard University; Medical Examiner for the County of Suffolk, Massachusetts. Octavo volume of 573 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1905. Cloth, $4.00 net. The subject of Legal Medicine is one of great importance, especially to the general practitioner, for it is to him that calls to attend cases which may prove to be medicolegal in character most frequently come. Dr. Draper has written his work both for the general practitioner and for the medical student. He has not only cited illustrative cases from standard treaties on forensic medicine, but these he has supplemented with details from his own exceptionally full experience—an experience gained during his service as Medical Examiner for the City of Boston for the past twenty-six years. During this time his investigations have comprised nearly eight thousand deaths under a suspicion of violence. The author's long teaching career has enabled him to state facts and detail procedures with a clearness rarely met in a work on Legal Medicine. Withal, Dr. Draper's book is unusually satisfactory.

### How to Live.

This excellent journal, which has proven so successful under the management of Dr. Geo. F. Butler, distinguisht teacher and litterateur of Chicago, has passt into the hands of the Alkaloidal Clinic and will hereafter be issued from the office of that live journal. Dr. W. C. Abbott, the millionaire editor, alkaloidist and all-round-good-fellow, will be managing editor.

### An Introduction to Pharmacognosy.

An Introduction to Pharmacognosy. By Smith Ely Jelliffe, Ph.D., M. D., Professor of Pharmacognosy and Instructor in Materia Medica and Therapeutics in the Columbia University (College of Physicians and Surgeons), New York. Octavo volume of 265 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $2.50 net. This introduction to Pharmacognosy is the first work publisht in this country dealing with the special individual anatomic characters of the different drugs, and it will be found of great service in enabling the student to recognize any drug in its crude condition. Dr. Jelliffe has laid special emphasis on the microscopic characteristics of drugs, not, however, neglecting the macroscopic appearances. He has also given considerable attention to the description of drug powders. In the selection of the drugs studied in detail the author has shown great care, taking those which are most typical of the general drug structures, amply equipping the student of pharmacy to pursue individual research of a practical nature. The source of each drug is given, then the microscopic and macroscopic appearances, the chemistry, and the adulterations—an all-important factor in practical pharmacy.

### Hart's Gynecology.

W. T. Keener & Co., of Chicago, have just issued a neat volume, entitled: Manual of Gynecology, by D. Berry Hart, M. D., Lecturer on Midwifery and Gynecology in the School of the Royal Colleges of Edinburgh, and A. H. Freeland Barbour, M. A., M. D., Lecturer on Diseases of Women in the same school. It contains about 800 pages, illustrated with 12 lithographs and 359 wood cuts; and sells for $6.00. A rather superficial examination of this, the sixth edition, shows it to be a very praiseworthy book, carefully revised to cover recent developments—especially in operative gynecology. Two American authors (Emmett and Kelly) are quoted more often than any English authority, excepting Simpson and Lawson Tait. It is of particular value to those who wish to obtain the English view-point of operative gynecology.

### Lydston's Diseases of Society.

**The Diseases of Society** (The Vice and Crime Problem); by G. Frank Lydston, M. D., Professor of Genito Urinary Surgery in the University of Illinois and of Criminal Anthropology in Kent College of Law; Philadelphia; J. B. Lippincott Co., publishers; price, $3.00 net. This is decidedly the most direct, forceful, and out-spoken study of social conditions in this country which has yet been put into print. Lydston considers not only the police criminal, the anarchist, and the sexual pervert, but also that vast number of offenders against the moral and physical laws whom the courts cannot reach. He deals with the oppression of wealth, the rights and wrongs of organized capital and labor, the negro question and the crimes which have grown out of it, and with the offences of "society" at large. His book is written in his most trenchant and brilliant style. His statements cut to the bone; he tells the truth without fear or favor. As a physician, physiologist and student of social conditions, he has had wide experience for many years; and this volume is the outcome of his studies. Already distinguisht as an author, I am sure this book will add greatly to his reputation as a great writer and deep thinker.

### Binnie's Operative Surgery.

Manual of Operative Surgery; by John Fairbairn Binnie, A. M., M. B., C. M., Professor of Surgery in the Kansas City Medical College; duodecimo, gilt edges, flexible covers, 650 pages, 559 illustrations, Philadelphia: P. Blakiston's Sons & Co. To say that Prof. Binnie has written an excellent treatise on operative surgery would be putting it too mildly; it is a book which will attract attention upon both sides of the Atlantic. In the first place it is one of the most beautiful books ever issued in this country; typographically near perfection, and illustrations superb in character and startlingly rich in number. But the charm of the book is not only in the exhibition of the printers', binders' and illustrators' art, it lies in the author's crisp, attractive style of writing—almost epigramatic in its conciseness and expressiveness. There is scarcely a word in the entire volume which could be lost; yet such is the literary ability of the author that nothing is left to be desired in his description of the operations. What, for example, could be more brief, yet clear, than his description of Weir's operation of excision of the rectum? (I take this merely at random—not because of its importance, but just because the book happens to open at that point). "Step 1: Open the abdomen thru the median line or the left rectus muscle. Step 2: Free the rectum from its connections to a point near the tip of the coccyx, posteriorly and to the edge of the prostate anteriorly. Step 3: Divide the gut between two ligatures above the tumor (see illustration). Step 4: By means of forceps passt up thru the anus seize the upper end of the lower segment of gut and pull it out thru the anus, thus inverting the gut. Cut away the tumor. Step 5: Pull the distal end of the proximal segment thru the inverted lower segment. The serous surfaces of the two segments now lie in apposition. Unite the two segments by Maunsell's method of suturing (see Fig. 321). Step 6: Reduce the prolpast gut. Suture the pelvic peritoneum, divided when freeing the rectum from its connections (Fig. 322). Close the belly. Drain the lower portion of the pelvis thru an incision made behind the anus (Fig. 323.)" What could be more beautifully clear than this, when associated with the appropriate illustrations? It is characteristic of the whole book. This happy condensation has enabled the author to cover the entire field of operative surgery (excepting the specialties and bone-surgery—to which he will devote a separate volume hereafter) in a book of small size, convenient for reference. My prediction is that this will prove one of the best books for selling ever issued to the medical profession of America; and I would not be surprised if a British edition would prove equally popular. Certainly it will bring distinction, well deserved, to its accomplisht author.

## GYNECOLOGICAL NOTES.

### Ectopic Pregnancy.

Dr. R. E. Skeel (Medical Review of Reviews) says it is a well-known fact that the classical description of disease and its clinical picture often vary widely. In no condition is this more evident than in the symptomatology of ectopic pregnancy. It is often stated that misst menstruation is most prominent, but often the irregularity is so slight as not even to attract the attention of the patient. Subnormal temperature is another point made by text-books, but much harm has been done by forgetting that the lowered temperature of hemorrhage and peritoneal shock is apt to be succeeded by slight and sometimes extreme elevation of temperature. The doctor says further that the characteristic local symptoms may one and all be absent, the physical evidences be absent or indefinite, but that hemorrhagic shock in a child-bearing woman with any symptoms pointing suspiciously toward the pelvis is sufficient justification for exploratory operation for purposes of diagnosis. A long period of sterility is frequently mentioned as an antecedent ectopic pregnancy, but of his fifteen cases three were primipara, two had been married less than a year, and one four or five years. The condition of the tube could be ascertained in eleven cases, and it was ruptured into the free peritoneal cavity in all of them. The severity of the symptoms due to rupture and hemorrhage seemed to depend upon the location, rupture near the uterus causing the most profound and sudden depression. In regard to treatment, the author says that some cases have recovered without operation, but a low mortality-rate in this condition can be gained only by an early diagnosis establisht by frequent and repeated observations, definitely confirmed, if need be, by vaginal section and exploration and operation at any period, provided the diagnosis is reasonably certain.

### The Use of the Stem Pessary.

Dr. J. H. Carstens, of Detroit, (Journal of the American Medical Association) says that dysmenorrhea in young girls is often produced by infantile uteri; when it occurs after thirty in virgins, by premature atrophy of the uterus. The uterus can only be developt by exercise. This, he declares, may be accomplisht by the stem pessary, as the uterus contracts and tries to expel it.

### Technic of Pelvic Operations by Vaginal Section.

Dr. J. Riddle Goffe, of New York, (Northwest Medicine, January, 1905), gives a detailed description of the methods of operative procedure in vaginal pelvic surgery. With growing experience he concludes that "any pathologic condition that is confined to the true pelvis can be dealt with as satisfactorily, with as permanent results, and with far greater safety to the patient, thru the vaginal than thru the abdominal incision." He believes its successful application will lie with the man who practises the specialty of gynecology. The preoperative and postoperative treatment of vaginal cases by Goffe differs somewhat from the usual. He sterilizes the vagina by frequent 1-

3000 bichloride douches and the day previous to the operation packs the vagina with 10 per cent iodoform gauze, wrung out in a 1-5000 bichloride solution. This is removed by the operator and vagina doucht with plain saline solution before beginning to cut. In acute pelvic inflammation Goffe uses the Fowler position, raising the head of the bed about 30 degrees so as to assist by gravity the flow of pelvic secretions.

### Gynecological Superstitions.

At the recent meeting of the Pan-American Medical Congress at Panama, Dr. Lucy Waite, of Chicago, read a paper on this subject, declaring them to be hard to overthrow. One of the first superstitions is that the uterus has a normal position. It has not, but may lie in any position. A second is that retrodeviation of the uterus is the cause of constipation. This is not so, as it cannot be proved either by dissection or examination. She has analyzed 500 cases, but could not trace constipation to posture of the uterus alone; the uterus was found in anteroposition in 60 per cent, in retroposition in 40 per cent; of the anteropositions, 52 per cent gave a history of constipation, while 48 per cent did not; of the retropositions, 66 per cent complained of chronic constipation, and 32 per cent had normal bowel movements. The third is that backache is a symptom of retrodeviation. She regards this as nonsense, as 1,000 cases examined disproved that superstition. The fourth, that flexion or stenosis is the cause of dysmenorrhea. This is not so, nor is childbirth the only cure. Of 300 cases where the question was asked: "Have you had more or less pain since the birth of your children?" the answer of 135 was, "more pain," of 89 "less pain," and of 76 "no difference." Some of these 76 had no pain before or since childbearing. Of the 135, some had no pain before childbearing. Many women had suffered worse after childbirth than before. She believes that the mania for operating in certain cases ought to be checkt on the death of these superstitions.

### Hernia Containing Gravid Uterus.

American Medicine refers to a case in the practice of Rosner in which a gravid uterus constituted the contents of a hernia. He found the evidence of a hernia dated back two years, but two months before he saw the patient the hernia gradually grew larger, accompanied by severe pain in the lower portion of the abdomen on the right side. He was able to palpate the pregnant uterus in the hernia sac. Taxis failed to reduce the tumor and the patient refused to take an anesthetic. At the end of the eighth month of the pregnancy he operated, opened the uterus, removed the cyanotic but living fetus. After the removal of the fetus, the uterus could be replaced in the abdominal cavity, but he was forced to perform Porro's operation, because the internal os was closed for the smallest drainage, and then, too, with the uterus in the peritoneal cavity the hernial ring could be closed only with difficulty.

### Adrenalin for Menorrhagia.

The same journal quotes Tredgorrd as reporting a case in which the third appearance of the menses was markt by a violent hemorrhage, leaving the girl blancht, almost pulseless, with dyspnea, dimness of vision, delirum, and inability to retain food. There was no history of hemorrhagic diathesis. The hemorrhage was quickly controlled by adrenalin chlorid, 15 m., with tincture of cannabis indica 10 m., given every two hours. At the end of 12 hours half of this dose was given, and at the end of 48 hours the mixture was discontinued. Three periods since have been perfectly normal.

### Pus in the Female Pelvic Cavity.

Stoner, of Des Moines, Iowa, says there should be but two recognized principles of treating pus in the pelvic cavity, viz: (1) By freely incising the abscess at its most dependent point; keeping it open and drained until cured; or (2) Total extirpation of the tissues involved. The history of the case will often enable one to select the proper procedure. Thus a severe infection following labor at term, in which forceps were used, or the parturient canal otherwise abraded, is much more liable to invade the cellular tissue than one following miscarriage and retained secondines. In the latter instance, the seat of the infection is usually the endometrium, and the Fallopian tubes are most likely to become the abode of a purulent deposit. Gonorrhea of the endometrium is practically always followed by infection of the tubes, usually resulting in a pyosalpinx. The gonococcus nearly always travels upon the mucous membrane by a serpiginous process; seldom by way of the lymphatics, blood vessels or thru the tissues by direct contiguity, thus rarely invading the cellular tissue. He concludes: 1. When pus exists outside the peritoneal cavity, it should be attackt when possible, thru an extraperitoneal incision. Such abscesses readily heal after incision and drainage. 2. Abscesses of the tube or tube and ovary combined, are intractable in healing after simple incision and drainage, and are prone to relapse. By such procedure, the immediate mortality may be lessened, but the morbidity is certainly increast. Total ablation is therefore better surgery. 3. Whether the pus is sterile or not, drainage should follow operations in which the peritoneum has been soiled with pus. 4. When vaginal incision is practist, it must be thoro. Mere puncturing or aspirating the abscess is a historic relic of surgical impropriety.

### Anatomy, Pathology and Development of the Hymen.

Dr. George Gellhorn, of St. Louis, according to St. Louis Medical Review, has made a thoro and conscientious study of the much neglected field of gynecology, taking for his material fifteen specimens of hymen obtained from individuals of varying age and including eight fetuses. His investigations point to the development of the hymen from a fold of the vagina. He reviews the other theories on this subject showing the fallacy of their arguments. In the anatomical portion the study of the connective tissue and elastic fibres is of special interest. The nerve supply of the hymen, according to the author, must be rather meager. Several tests made clinically are given as proof of this. The pain in defloration is probably due more to the psychic condition of the individual and the forcible dilatation of the vaginal entrance.

### Fibroma of Uterus Complicated by Disorders of Heart and Kidneys.

At a recent meeting of the Philadelphia Medical Society G. E. Shoemaker (New York Medical Journal) in a paper with this title said that later observation of this class of growths has shown that the harmless tumor is comparatively rare, if the past, present, and future of the individual are considered. Some complications are caused by the tumor, others are aggravated by its presence. Salpingitis, peritonitis, intestinal obstruction, dystocia, diseases of the bladder, secondary anemia, depression of the nervous system from starvation due to hemorrhage, ascending kidney disease, dilatation of the heart from backpressure and degeneration of the heart-muscle may be mentioned. Questions of management in the relatively simple groups differ from those where serious diseases of other organs exist. The nicest consideration must be given to individual conditions. Patients having serious visceral lesions may be operated upon with advantage, if the presence of the tumor seriously exhausts the vitality or complicates the situation, provided a reasonable margin of safety can be shown. Careful preparation of the individual is then essential, possibly lasting for two weeks. Surprisingly good results follow. Cases were given in which patients had recovered from hysterectomy, one showing mitral disease, another arteriosclerosis and valvular disease of the heart, and another profound uremia without nephritis due to the ball-valve pressure of an enormous movable tumor intermittently obstructing the ureters. Still another case showed serious heart weakness, etc.

### Is Symphyseotomy a Surgically Incorrect Procedure?

Medical Review says: The question is answered in the negative by Zweifel, who has hitherto been the strongest, and in fact almost the only upholder of symphyseotomy in Germany. He answers in particular the arguments brought up by Gigli, who favors the operation of pubotomy in which the cut is made thru the pubic bone, because such a wound will heal better than one made thru cartilage, as in the ordinary symphyseotomy. If care is taken to secure sufficient drainage, the cartilage-wound heals just as firmly and has the advantage of being more in the median line, thereby equalizing the strain on the two sacroiliac synchondroses. The hemorrhage is about the same in both operations.

### Pathological Histology of Chronic Oophoritis.

Carlo Pinto (Medical Progress) has made histological examinations of twenty-three ovaries, in twelve cases of chronic cophoritis operated on in the hospital at Dresden, of which he gives the details. The alterations of the stroma vary; in some there is a simple hyperplasia of the connective tissue elements, while in others the alteration is so complete that the substance looks like a mass of connective tissue. In other case the corti-

cal zone shows all the follicles atrophied and changed to connective tissue. The blood-vessels show a hyaline degeneration of the intima and media, and a small-celled infiltration around them. There is a vascular hyperemia, especially about the follicles, and hemorrhagic foci in the stroma are numerous. In the parenchyma the germinative epithelium is often lacking; in some cases the epithelium dips down into the substance so as to form small cysts lined with epithelium. Of the primoordial follicles the number is much diminisht. The Graafian follicles in process of development are also few in number. The development of the follicles is interrupted by the inflammation, and atresia ensues. There are often perifollicular hemorrhage and alteration in form of the follicle. The cells of the membrana granulosa are the subjects of granular degeneration, and contain vacuoles. The germinal vesicle has disappeared in many cases entirely. The author ends by classifying chronic oophoritis as follows: 1. Chronic diffuse oorphoritis, in which the pathogenic agent enters by the vessels of the hylum, in which the whole substance, stroma as well as follicles, is involved., 2. Chronic cortical oorphoritis, in which the pathogenic agent enters by the external surface of the ovary, involving the cortical portion, follicles, and stroma. 3. Microcystic degeneration is to be considered as a chronic inflammation of the ovary, giving a third form. 4. No matter how great the cystic alteration of the ovary, some part is preserved so as to carry out its function normally.

### The Uterine Curet.

Recently, in lecturing, Dr. A. Brothers, of New York, remarkt: Another means of intrauterine exploration is the curet. Twenty years ago it was so seldom used that only experts were supposed to handle it. Today the general practitioner's armamentarium is not complete without it. A quarter of a century ago Thomas took up the fight against the sharp curet as a dangerous instrument, and recommended a blunt or dull substitute. The concensus of medical opinion, however, was in the opposite direction, and one seldom hears of a blunt curet being used, excepting perhaps to remove adherent placental tissue from septic uteri. The pendulum has, in my opinion, again swung too far, and I believe that no other instrument was ever more abused than is the curet today. I believe that hundreds of uteri are perforated annually by the careless use of this instrument, and I am satisfied that any number of unnecessary curettages are done constantly in the puerperal uterus for conditions which never call for a curettage. The chief danger of the curet is perforation. I have confesst on another occasion to a few done by myself, and it is for this reason that I hope to sound a note of warning. Besides ending fatally, a grave danger after perforation in those who survive is the persistence of a pelvic peritonitis which has, in certain cases, rendered patients invalids for life. A third serious condition which I have noted in uteri scraped too thoroly and well, has been an agglutination of the raw surfaces of the uterus with a complete obliteration of the uterine cavity. Besides these conditions I have seen several instances of diminutive uteri left after repeated curettages.

### Dysmenorrhea in Young Girls.

New York Medical Journal gives an abstract of a paper on this subject by Dalche, who advises a search into causes, among which are tigat lacing, over-study, physical fatigue, long sessions at the piano, etc. For the pain: rest, warm napkins applied locally, opiated washes, suppositories of belladonna are recommended. A lavement may be used:

Antipyrine.....1 gramme (15 grains)
Wine of opium.....20 drops
Warm water.....about 1 quart
M. For a lavement.

The following ointment is useful:

Extract of hyoscyamus.....2 grammes
Extract of belladonna.....2 grammes (30 grains)
Lard.....30 grammes (1 ounce)
M. For an ointment.

Ice should be avoided, as altho it calms pain, it may stop menstruation. Fliess' method of touching the turbinates with a solution of cocaine seems to have proved successful in a number of cases. For the actual treatment of the dysmenorrhea, where potassium bromide, or phenacetin may be tried. Apiol has been of service. The following prescription has been suggested by Gaillard Thomas' remedies:

Tincture of viburnum prunifolium.....10 grammes
Tincture of Jamaica dogwood....10 grammes (⅓ ounce)
M. Twenty drops, three or four times daily.

Morphine remains as a last resource. For ileolumbar neuralgia, painting with ichthyol gives excellent results:

Ichthyol .....10 grammes ( ⅓ ounce)
Chloroform .....15 grammes ( ½ ounce)
Camphorated alcohol.....75 grammes (2½ ounce)
M. To be painted on.

Massage of the loins, buttocks, and thighs is recommended, with warm baths. Where the amount of blood is excessive, hydrastis canadensis is the best remedy. Between the periods, cold bathing of the arms and legs is advised. Where the flow is delayed or scanty, ovarian opotherapy is recalled as having rendered good service. Gymnastics in moderation is also valuable.

### Early Diagnosis of Tubal Pregnancy.

A paper upon this important topic was presented at the recent meeting of the Western Surgical and Gynecological Association by Dr. W. E. Ground, of West Superior, Wis., who reported ten cases operated upon by himself in the past year alone. He based his conclusions upon the histories and gross appearance of the uterus and appendages at the time of operation. He is firmly convinced that ample pathology was present to cause the arrest of the fecundated ovum in the tube in every instance. Five of his cases were in primiparas, who gave a history of painful menstruation and leucorrhea. Thirteen patients gave a history of a prolonged period of sterility (three years of longer). The remaining twelve cases occurred in multiparous women who had borne children or had been pregnant within less than three years. Many of these women gave unmistakable evidence of pre-existing pelvic disease. One primipara had been married three years, one five, and another eleven years, before tubal conception occurred. Two cases occurred in unmarried women, one of whom had had a criminal abortion produced. Complications arose, and she was sent to Dr. Ground for abdominal section, when an unruptured tube containing a six weeks' fetus was found. Another case, grass widow, who was known to have had chronic appendicitis, was taken with a sudden severe pain in the right lower abdomen, followed by considerable shock, but she soon rallied and had a slight fever; at which time he saw her; menstrual irregularities were denied; tenderness was present rather low in the iliac fossa for appendicitis, uterus was enlarged, and a slight bloody discharge came from the vagina; there was an ill-defined tumor to the right of the uterus. The abdomen was opened and found to contain blood clots and bloody serum. The right tube was ruptured on its dorsum, at about the middle, but the fetus was still in the tube. Chronic appendicitis was also present, and the appendix removed. Two cases had small fibroids, and one had an ovarian cyst as large as an orange on the opposite side.

### Pain of Floating Kidney.

Tuffier describes two cases (New York Medical Journal) in one of which the pain was very severe with exacerbations, in the other very slight. He considers pain as variable in existence, intensity, localization, radiation, severity, form, and intermittence, and believes that from these variations indications can be drawn regarding prognosis and treatment. He divides the pain into two general forms, constant and intermittent. The constant form is centered in the lumboiliac region, whence it radiates in many directions, is rarely acute and is increast by pressure. It is rarely met with in children, usually in adults, appearing as a rule slowly and progressively. It is frequently associated with pains in the liver, intestines, stomach, uterus and annexa, from which it must be distinguisht. The intermittent form presents two varieties, one simply a dragging sensation with radiations to the lateral parts of the thorax, very rarely toward the abdomen; the other the pains due to an intermittent hydronephrosis.

### Puerperal Insanity.

An interesting case of insanity during labor is reported by Eskildson in St. Joseph Medical Herald. He was called to see a woman said to be suffering from a serious attack of "biliousness" in an entirely unknown family. A cursory examination, not manual, satisfied him the woman was in labor. This was not at all suspected by the many women who were present. He requested an examination. The patient lookt at him contemptuously, and replied that he was very much mistaken if he thought her pregnant. The evidence of labor pains was even then plainly seen in her face. She reluctantly consented to an examination, which showed her to be in the second stage. In-

formation of this fact was given to her, upon which she instantly lost her identity as Mrs. B. and took the position that she was a young lady in her father's home: that Dr. E. was her lover, dancing attendance upon her least commands and that her husband was her father. Any attempt to make another vaginal examination at this moment met with the most violent resistance. Since she was a young lady, she could not tolerate for an instant such an outrage. Fearing convulsions, he suggested chloroform and forceps. Her husband objected, and he was forced to use the bromides. Her pains were so severe as to cause her to throw herself around over the bed, and her favorite position was sitting on the bed with her back against his side. She then exclaimed, while looking very lovingly at me, "Oh, pa, do you think he loves me?" The husband's look of contempt and scorn can better be imagined than described. Dr. E. told the husband that his wife was entirely unaccountable for her actions. At this juncture the child was born, and the mother screamed at the top of her voice, "Let me have that brat; I will kill it and hide my shame!" After delivery she became perfectly quiet, but still thought she was a young lady. She persisted in this belief until the morning of the fifth day, when she awoke from a natural sleep as Mrs. B., the happy mother of her fifth child. The day of labor and the following days were a perfect blank. How much hysteria was associated with this case?

### Ptosis of Abdominal Contents.

At the recent meeting of the Western Surgical and Gynecological Association, Dr. R. C. Coffey, of Portland, Ore., read a paper on this subject in which he reacht the conclusions: (1) The peritoneum is attacht firmly, not only to the diaphragm, but loosely by all its outer surface to the abdominal and pelvic walls by means of loose connective tissue, which allows it to move freely, but holds it always in contact; this connective tissue being much increast around the attachment of the supports of each organ. The irritation underneath and back of the peritoneum is followed, first, by an exudate which fixes it immovably to the abdominal wall. This exudate is soon displaced by an increase of normal connective tissue sufficient to meet the demands. The peritoneum itself is but slightly elastic, its seeming elasticity being due to the elasticity of the subperitoneal connective tissue. (2) Two peritoneal surfaces brought together and held firmly in an aseptic state blend and become one membrane. If suppuration or other disturbance occurs, blending does not take place, but inflammatory adhesions are formed. The former is permanent, while the latter is transitory, and will be absorbed generally. This differentation is all-important. (3) The uterus is suspended entirely by its peritoneum and connective tissue. (4) The so-called "true" ligaments are not true ligaments, but muscles, and therefore perform the same function as all other muscular fibers in the animal organism, which is intermittent contraction, but never constant action. Their function is to sustain the normal poise or balance of the uterus during the changing positions of the body. (5) Whatever may be the cause, the condition of ptosis is a stretching of either or both the peritoneum and connective tissue. The condition may be local or general, and may involve the support of one, more than one, or all the abdominal and pelvic organs. (6) The treatment in a general way will be the shortening of the peritoneum at the points at fault by some methods of plication, and blending, or by bringing the peritoneum back to its normal contact with the abdominal wall. (7) The ideal method for suspending the liver consists of shortening the normal suspensory ligament, supplementing it by extending the ligament to one or both lobes by blending of peritoneum. (8) None of the operations for gastroptosis so far are theoretically or practically ideal for all cases. The hammock operation, stitching the omentum to the abdominal wall, is best suited to those cases due to adhesions holding the stomach out of place by its omentum, in which the condition accompanies operations on the lower abdomen or pelvis only. No discomfort has been observed by any of his patients. Posterior gastro-enterostomy is best operation for those cases due to dilation or pyloric obstruction of any kind, and is all that is necessary, as it is held by its attachment high up and well back to the transverse mesocolon.

### Meckel's Diverticulum.

American Medicine quotes Dr. Frank E. Bunts, of Cleveland, Ohio, as reporting a case of hernia in which the sole content of a strangulated hernia was a Meckel diverticulum. Various authorities are quoted, and they agree in the main that this diverticulum is present in about 2 per cent of all bodies examined postmortem. Mitchell found Meckel diverticulum in thirty-nine instances on examining 1,635 bodies; four of the thirty-nine were among women, the remainder being male subjects. The diverticulum does not always spring from the ileum. Lamb found the record of fourteen cases in which it had sprung from the jejunum, and in seven in which it arose from the duodenum, two of the latter being in the Army Medical Museum. Usually it is found in the developt body, springing from the ileum at a distance of one to three feet from the ileocecal valve. Hernias in which the diverticulum has so far been exclusively found are the umbilical and inguinal variety. The case reported by Bunts was briefly as follows: A male laborer of twenty-three suffered from the symptoms of strangulated hernia. There was tumor, pain and tenderness in the right inguinal region. Operation was performed, and the sole content of the hernial sac was a Meckel diverticulum, together with bloody fluid. The diverticulum being gangrenous, a segment of intestine 20 cm. (8 in.) long, from which the diverticulum sprang, was resected and an end-to-end anastomosis effected. The patient recovered.

## SURGICAL NOTES.

### Penetrating Wounds of the Gut.

Apropos to the remarkable report of Dr. Fred. S. Clinton, of Tulsa, Ind. Terr., which appeared in the February issue of American Surgery & Gynecology, is this paragraph in American Medicine of February 11, in an article by Dr. Frederic S. Dennis: "The operation of laparotomy for the treatment of penetrating gunshot and stab wounds of the peritoneal cavity, was the work of American surgery. Gross, in 1843, and Sims, just before his death, both suggested this method, but these surgeons never practist this method of treatment. It remained for Bull, of New York, to make the practical application of the method, and to him is due the credit of this great advance in surgery. It is a source of national pride that laparotomy in penetrating wounds, and visceral injuries of the abdomen, was conceived, developt, and perfected in America. The widespreading influence of this operation is felt in abdominal surgery, and much of the present advance is the result of Bull's surgery." All of which is correct save that Dennis with the modesty (!) characteristic of certain narrow New York men who would retain all the credit to the metropolis, neglects to mention the work of certain Western operators of even more importance practically, than all that Bull ever did.

### Rupture of Gall-Bladder.

In St. Louis Medical Review of Feb. 18, '05, appears a report of 203 cases of spontaneous and traumatic (operative and non-operative) rupture of the gall-bladder, collected by Dr. Benjamin Merrill Ricketts, of Cincinnati, O. The author in the introductory paragraphs states that the object of his paper is to present as briefly as possible, the more important points of all available cases of spontaneous and traumatic rupture of the gall-bladder, which have been reported to date, in the hope that comparison of the results of operative and non-operative methods of treatment thus afforded may be of use to the physician and surgeon alike. To facilitate this comparison he has divided the 203 cases mentioned into two classes: the spontaneous and the traumatic rupture, and each of these classes in turn into four divisions, each of which he treats in a separate chapter. In chapter I, under the heading of spontaneous rupture he mentions 37 cases of spontaneous rupture of the gall-bladder, which have been operated on successfully, and shows that 80 per cent of these have been females; that one or more concretions have been found in 72 per cent of them; and that 80 per cent of these successful operations have been cholecystotomies. In chapter II he mentions 27 cases which have been operated on successfully, and shows that they were equally distributed between males and females; that concretions have been found in about 60 per cent of them; and that 80 per cent of these unsuccessful operations have been abdominal sections. In chapter III he mentions 6 cases which have recovered without operation and in chapter IV 89 cases which have died without operation, showing that sex has been equally involved in these cases, and that concretions have been found in about 60 per cent of them. A final comparison shows the recovery of 58 per cent of those operated on as against the recovery of only 6 per cent of those not operated on. In chapter I, under the heading of traumatic rupture, he mentions 23 cases which have been operated on successfully, and in chapter II 3 cases which have been operated on unsuc-

cessfully, death having been due to shock, infection and hemorrhage. In chapter III are recorded 14 cases in which death resulted without operation, showing peritonitis to have been the ruling cause of death, and in chapter IV, 4 cases which have recovered without operation, recovery having probably been due to drainage. Comparison of all traumatic ruptures shows the recovery of 88 per cent of those operated on as against the recovery of only 22 per cent of those not operated on.

### The Lymphatics After Surgical Operations.

Gwyer (Annals of Surgery) reports the case of a boy of six who had the "lymphatic constitution" and after an ordinary operation for the removal of a few lymphatic glands from the axilla develop great restlessness, high fever, rapid pulse and delirium, and died within twenty-four hours. This experience impresst upon him the possibility of infection thru the lymphatic channels, and the necessity of closing such orifices as far as possible, not only at the time of the operation, but subsequently. He describes as follows the plan he has tried for the past year: The diseased glands are dissected to the point of exit of the lymph-vessel, which is then tied in the same manner as an artery or vein. This is valuable because the arterial supply enters at about the same point as the emergence of the lymphatic, and there is less hemorrhage than otherwise. The lymphatic spaces are cared for in two ways: When a good deal or all of the work can be done before the abscess is opened, as in excision of a piece of rib for empyema, all that is possible is done in the cleanliest manner; then, before opening the pleural cavity, sterilized vaselin or a thick ointment (such as iodoform ointment made with vaselin or lanolin) is rubbed thoroly over the entire raw surfaces; this occludes the lymphatic spaces and smaller vessels until such time as there is no longer danger of absorption thru them; the chest is then opened. In case of ordinary abscesses, as soon as the pus is evacuated and the cavity washt out, it is swabbed dry, and enough ointment or vaselin is thrown in to fill it. This is not a new method, but its use has been confined to treatment of suppurating bubo, rather than to abscesses elsewhere. In the after-treatment of infected cases, particularly such as have cavities, it is well to fill them with ointment at each dressing, or occasionally, as may be. The ointment should be soluble (bismuth or oxide of zinc is not to be recommended), while there should not be enough poisonous material in it, such as iodoform, to affect the patient. This method eliminates, in part at least, one of the causes of death in lymphatic constitution. The writer's cases have done better, have run less temperature, have had less local symptoms and fewer complications, where this method has been used.

### Gastro-Enterostomy with Elastic Ligature.

European recognition of the McGraw method seems establisht. Medical Progress says Tiefenthal (Beitraege zur Clinichе Chirurgie) the German assistant at Czerny's clinic is enthusiastic over his experimental success with the elastic ligature. It was at this same clinic more than anywhere else in Europe that the Murphy button received recognition a few years ago; a matter worthy of note when it is considered that many of the Germans refused to consider many surgical suggestions, for the simple reason that they are of American origin. The author makes a new suggestion for the use of the ligature method in a special field, viz., the congenital pyloric narrowing of infants; his very good reasons for the proposition are that rapid operation is especially desirable here, and that the Murphy button is too heavy to be serviceable in these weak tissues. Nine experiments were done on dogs with a rubber cord of 0.3 Mm. thickness, and in one of these an attempt was made to cut out a quadrilateral opening after the manner of Maury, the McGraw technic being followed in all the others. The Maury technic is strongly condemned as being dangerous thru the many needle holes as well as being time-consuming. A most ingenious addition to the usual technic enabled the operator to bring the rubber knot away from the needle-hole and place it in the center of the new opening, thus avoiding a decubitus at a point near the Lembert suture. Especially is the ligature operature to be desired in the anterior operation, where on account of the recumbent position the button will often drop into the stomach; a good point it would seem. In one case the Lembert suture was placed too near the mesentery of the gut, with a result that intestinal vessels were unavoidably ligated and the gut became gangrenous at the edge of the operator's field, a peritonitis resulting. The ligature operation has been found by Tiefenthal to be slower than the button, but faster than suture.

### Burning Foot, or Erythromelalgia.

Dr. P. N. Gebhard (says Southern Clinic) defines this disease as one of the plantar nervous or arterial supply occurring most often in Eastern natives accustomed to working barefooted on roads and plantations. It commences with a "pins and needles" sensation affecting the soles of the feet, and progressing to an acute burning sensation, which becomes so severe as to prevent walking and necessitates the administration of narcotics to produce sleep. In the histories of the six cases upon which his paper is based he notes that altho a previous history of malaria could usually be obtained, there was no such history occurring during the progress of the erythromelalgia. This suggested the possibility of the disease being a neuritis of malarial origin. The blood-supply to the nerves may have been cut off by a deposit of malarial pigment. The duration of the disease at the time of presentation was from three days to three months, from which a chronic course may be argued. It also seems that the affection is not any form of acute local disease occurring in a given place after a fixt incubation-period. Length of residence in any particular country seems to have no influence on the production of the disease. In two out of the six cases sugar was found in the urine. Usually there is a variable amount of swelling and occasionally slight sclerodactylia. The author is inclined to the view that the disease does not exist so much in the congestive as in the cellulitic form, altho it may commence with the congestive form. Aside from a possible malarial origin, it may be due to arteriole fatigue. Paralysis of the sympathetic, excitation of the vaso-motor nerve-fibres and general toxic vaso-motor derangements do not seem to be factors in the disease. A varied treatment was employed. Narcotics and sedatives gave only temporary relief; various lubricants and ointments, general tonics, with or without strychnine, failed to give any relief. In two cases relief was experienced by immersing the feet in hot salt water.

### Fractures of the Humerus in Children.

Dr. J. S. Stone, of Boston, is quoted by Medical Progress as saying: "When after a fall on the arm or shoulder children are unable to abduct the arm, but present none of the other signs of fracture or dislocation, and are able to move the arm in other directions, most careful examination should be made to determine localized tenderness anteriorly just below the head of the humerus, together with a slight irregularity in the contour of the bone at the same point. These signs are sufficient to establish the diagnosis of fracture of the surgical neck, and should deter one from further attempts by rough handling to secure crepitus or abnormal mobility." Five cases are given where the humerus was fractured. In the first two diagnosis was not made till the presence of callus gave the key to the condition, then X-ray pictures verified the conclusion that the humerus had been fractured. After this lesson cases were diagnosticated at the first examination and the proper treatment given. Good functional results were secured in all. These fractures are not of the greenstick variety, for they occur in older children, and the X-ray has shown them to be transverse. The impaction, if any, was slight in all cases, as witness the lack of deformity. The absence of the cardinal symptoms of fracture is due to the fact that the periosteum is tough and strong in the child. The medico-legal importance of recognizing these cases is obvious.

### Post-Operative Intestinal Obstruction.

Peck concludes an article upon this subject (October Annals of Surgery) as follows: "The possibility of post-operative obstruction should be borne in mind in all abdominal operations, especially in those which are likely to be followed by extensive adhesions, for example, appendicitis with peritonitis, or pyosalpingitis with pelvic peritonitis. Hence all raw surfaces should be covered if possible with normal peritoneum, or with carefully arranged omentum. Incisions should be as small as possible, and there should be the least possible manipulation and evisceration. The peritoneum should be cleansed rapidly and gently. Flushing with hot saline solution is desirable if much foreign material is to be removed. If drainage tubes are required they should be small—cigarette drains being preferable to gauze, because they are less irritating to the surrounding peritoneum. In pyosalpinx and pelvic peritonitis, there is rarely a necessity for drainage, and when the necessity exists it can usually be accomplisht thru the cul-de-sac of Douglas. Diet and regulation of the bowels must be considered with great care during the first few weeks of convalescence. Attacks of gaseous indigestion with colicky pain should be regarded with suspicion and treated promptly and vigorously. Early attacks of obstruction should

be relieved by enemata, position, gastric lavage, and other approved measures. If they are successful the patient should be kept on a scanty fluid diet for a considerable period, and carefully watcht for a possible recurrence of symptoms. Should palliative measures be unsuccessful an operation should be promptly performed. In obstruction which occurs later than four to six weeks after operation, palliative measures are seldom effective, and an early operation is usually demanded. Patients who have been subjected to operation for intra-abdominal inflammation should be warned of the possibility of obstruction at any time; should be urged to avoid indiscretion in diet; and should be impresst with the necessity of seeking advice promptly should such obstruction occur. The operative procedure must be adapted to each individual case; the right Kammerer incision for cases in which complete healing has followed appendicitis is frequently efficient, while the median line incision is desirable for most other conditions. Resection and end-to-end anastomosis is usually preferable to enterostomy, where gangrene or sloughing of the wall of the gut requires the one or the other.

### Pathology of the Knee-Joint.

Professor A. Hoffa, M. D., Berlin, in his address before the American Medical Association, gave a description of the knee-joint anatomically which shows that the fatty tumors found in that joint may arise from the fat which is normally in the joint, they do not have to arise from trauma which so injures the synovia that the parasynovial and retrosynovial adipose tissue may escape into the joint, as stated by Koenig, Volkmann and others. The histological details of this condition he and his assistant, Dr. I. A. Becker, have thoroly workt out, and their conclusions are based on a series of twenty-one cases. The tumors are often the size of an egg and are composed of very solid adipose tissue and villi stained by former hemorrhages and containing blood clots of recent ones. Injury plays an important role in the causation of these tumors, and they are often seen in cachectic individuals. The symptoms are somewhat similar to those of floating bodies in the joint; that is, pain on the median side, locking, swelling of the joint on both sides of the patella, showing pseudo-fluctuation. To differentiate this condition from floating bodies the X-ray light is needed at times. In separation of the meniscus the pain is localized exactly within the joint cleft. Operation should not be resorted to until other means of treatment have failed, i. e., massage, compression, etc. If done it should be done with the greatest care and is to be recommended.

### Perforation in Typhoid.

Haggard, of Nashville, is an enthusiast on operative treatment of typhoid gut-perforation. He says the old phrase: "The resources of surgery are rarely successful when practist upon the dying," has been most wonderfully negatived in the operative treatment of perforative peritonitis of typhoid. It is estimated that 25,000 deaths occur yearly from this accident in this country, and on a basis of a possible 30 per cent recovery by operative intervention it is probable that 7,500 persons perish in the United States each year, who might be saved. One reason is the reluctance with which the practitioner invokes the aid of surgery in the presence of such forbidding general symptoms. Another is the likelihood of death even with operation; but the greatest of all is the difficulty of making a positive diagnosis in the early stages. The symptoms usually mentioned as indicating perforation (pincht features, cold sweat, feeble pulse, short sighing respiration, distended and motionless abdomen), are really late and lethal manifestations of peritonitis and not of perforation. Some cases are fairly typical, but others presenting such presumably typical symptoms are found not to have perforation. Again, peritonitis may be the first symptom. In the case of a patient in the third week of a mild attack, without abdominal symptoms and pursuing a regular course, who is suddenly seized with an acute paroxysmal pain in the right lower quadrant of the abdomen that causes him to cry out, that is unrelieved by ordinary measures, followed by collapse, subnormal temperature and rapid pulse, which is succeeded by a rise in temperature in a few hours, associated with continued pain, considerable tenderness and right sided tenderness, together with a rapidly increasing leucocytosis, the diagnosis of intestinal perforation is reasonably certain—not absolutely—but surgically, and such cases should be operated. The difficulty is that all cases do not present this typical grouping. Study of the reported cases develops that a sudden severe, colicy pain is present in a large majority of cases. Collapse is an infrequent attendant of perforation. Fall of temperature was not constant, but rise in pulse was rather uniform. Of the physical signs tenderness was found to be the most constant. Studied in the order of their development and more especially their significance it was found that pain, then tenderness, then rigidity and then localization in one spot occurred. Persistence of symptoms serves to distinguish them from colic, which should disappear in a few hours or change its location. Exploratory incision should be regarded as a necessary and final aid in diagnosis. The facts deduced from statistical study may be summarized as follows: 1. Perforation occurs in 81 per cent of men, and in 19 per cent of women. 2. It occurs in about 2.5 per cent of all cases of typhoid fever. 3. From the figures given it is seen to occur more frequently in the third week, tho it has been observed as early as the tenth day. 4. It naturally occurs more frequently in severe attacks, but may attend mild attacks, and it may be the first real symptom of so-called walking typhoid. 5. In 95 per cent of cases the ileum is affected usually within 18 inches of the cecum. 6. The perforation is usually single, tho multiple perforations have been observed. Cases of diarrhea and tympany are more likely to suffer this accident. In some cases it occurs with hemorrhage. 7. The death-rate given by Murchison is 90 to 95 per cent. Osler says that he could not recall a single case in his experience that had recovered after perforation had occurred. Occasionally with careful endeavor to correctly interpret the signs aright, no lesion has been found. This has been done by the most expert, and will sometimes happen until we devise some absolute early sign. It has been demonstrated that these patients will bear the surgery necessary to make a positive diagnosis in suspected and doubtful cases. It is surgically immaterial whether a perforation exists or not if there is peritonitis.

### Surgical Cure of So-Called Chronic Dyspepsia.

Dr. Charles A. L. Reed, of Cincinnati, in New York Medical Journal says that the majority of cases of so-called "chronic dyspepsia," "gastralgia," "nervous gastralgia," "neuralgia of the stomach," "cardialgia," and "hyperchlorhydria" are in fact cases of ulcer, or the organic consequences of ulcer of the stomach or duodenum, or both. Cases amenable to medical treatment should be cured in from five to six weeks, after which time they should be placed in the surgical category, while hemorrhagic cases should be operated upon without the delay prescribed by medical writers. Surgical ulcer of the stomach if neglected may develop adhesions, perforations, hemorrhages or cancer, or in the absence of these may provoke sepsis and anemia, which, if the underlying conditions are not corrected by operation, may (and frequently do) prove fatal. It is important therefore, that the cases should be promptly brought to operation, which without reference to details should establish rest and maintain drainage for the diseased organ. The comfortable after-course of these cases, the low primary mortality, and the permanent curative results following the operation comprise its complete justification.

### Nasal Syphilitic Tumors.

Toeplitz writes (Medical Progress) that the tertiary manifestations of syphilis in the nose are often seen very early—a few months to one year after the first infection, but as a rule much later. The tertiary lesions of hereditary lues are the same as those of the acquired, and occur either soon after birth or during puberty. The anatomical lesion is a gummatous infiltration of the mucous membrance, independent affection of cartilage, periosteum, and bone, and simple infiltration, with softening, ulceration, either from without, inward or inversely. The favorite seat of the infiltration is the septum. The tumors are either extremely large gummata or so-called granulomata. Granulomata obstruct the nose when large enough, and discharge fibrinous, smeary and purulent secretions. They cause pain in the head, face, shoulder, and paralytic-like weakness in the arm. They are of variable size, and are implanted upon the mucous membrane with a broad or pedunculated base. Their favorite seat is the anterior lower portion of the septum, occasionally also the nasal floor. They are red, reddish-gray, not quite smooth, show frequent erosions, but rarely ulcerations. They are covered with fibrinous, purulent, firmly adherent exudations, in some cases with thin, fluid mucopurulent secretions. The tissue is boggy and brittle, but without tendency to decay, its main distinction from gumma. In many of these cases examination apparently revealed a sarcoma, but the tumors disappeared under antisyphilitic treatment. Multiple tumors sometimes develop under and along the lower turbinate which resemble a papillomatous growth, and recur as rapidly as they are removed, but

which are cured with mercury and iodide of potassium. The diagnosis of these tumors is difficult if the patients do not exhibit other syphilitic signs and the history does not furnish any support. Microscopic examination does not give positive results as to the specific nature. The new formations are true tumors, pure connective-tissue growths originating from the submucous connective tissue. The giant cells, which resemble the tuberculous giant cells, are proliferations of endothelia from the walls of small veins, and the leucocytes also take part in their production. The fibrous connective-tissue stroma is the distinguishing feature between these tumors and the round-celled and spindle-celled sarcoma, in which the fundamental substance is sparse and more homogeneous or slightly granular. The granulomata or syphilomata are not to be confounded with the frequently occurring nasal gummata, which are an inflammatory infiltration into the mucous membrane along its prominent surface, and which soon decay and ulcerate. The syphilomata, however, originate from a small, circumscribed place, the mucous membrane, develop to a considerable, and do not exhibit any tendency to decay. The clinical proofs are the history and other syphilitic lesions. Perforations of the nasal septum are not always specific. The best criterion for the diagnosis is the success of antisyphilitic treatment, consisting of mercury and potassium iodide.

### Two Cases of Leukemia Treated With Roentgen Rays.

Medical Progress says that Fried recommends the application of the X-ray in the treatment of leukemia, and reports two cases in which his results seem to justify the treatment. In these cases the subjective symptoms were greatly improved; the number of leucocytes in the blood returned to the normal; the number of red blood corpuscles and the amount of hemoglobin were increast; in one case the spleen became decidedly smaller, in the other perceptibly so. The improvement was so prompt that there could be no doubt, in the absence of other treatment, that the X-rays brought about these results. The author is in doubt as to the permanency of the results, but recommends that the treatment should not be stopt too soon. It may be necessary to continue the applications of the rays even after all of the symptoms have practically subsided.

### Paraffine for Urinary Incontinence.

Before the Clinical Society of the New York Polyclinic, Feb. 6, 1905, Dr. J. A. Bodine reported the case of a woman who, at the birth of a child, was torn thru the perineum into the bowel, and the front wall of the vagina so lacerated as to cause urinary incontinence. After restoration of the perineum and the sphincter of the bowel, an anterior colporrhaphy was performed, and after this a ridge of paraffine was put along the lower surface of the urethra, from the neck of the bladder to the orifice. The patient can now hold her urine for six hours.

### Prevention of Emesis After Chloroform.

Dr. Walter B. Dorsett, of St. Louis, in Medical Review, says that post-operative vomiting is the **bete noir** of the abdominal surgeon. This distressing condition often lasts for hours and even days, and its dangers are often far-reaching. It weakens the heart-action, disturbs wound-coaptations, not only in abdominal incision, but wounds in the repaired abdominal viscera as well, to say nothing of its production of gastric inflammation, which in many instances becomes a more serious condition than that for which the operation was performed. Again, this condition of vomiting is not always easily differentiated from intestinal obstruction. Aside from the fasting for twelve hours before the operation and the post-operative inhalation of vinegar or acetic acid, nothing was done for my patients to prevent this distressing condition until a short time ago, when I chanced to see a short note in a journal on the cause of chloroform vomiting and the cold-water-treatment therefor. I immediately called to mind several cases in which I had been greatly worried as to this condition and I resolved to try the treatment. The author, in this note, calls to mind the observance of the action of the muscles of deglutition which we frequently notice in the patient while the anesthetic is being administered. The mask is well applied over the nose or mouth, or both, and the anesthetic is poured or dropt on. After two or three inhalations, if notice is taken, the patient will be seen to swallow as well as inhale, and the vapor of the anesthetic is taken into the stomach more rapidly perhaps than into the air passages. The stomach is empty and the superimposed walls are separated and the anesthetic comes in direct contact with the gastric mucous membrane, with the result of producing not alone an irritation but an inflammation. Thus is a gastritis produced and as a consequence vomiting as a reflex neurotic symptom establisht. Now, by allowing the patient to drink from thirty to forty ounces of water in quantities of ten ounces at intervals of a half hour prior to going to the operating room, the stomach is filled with the water, and as soon as the chloroform or ether enters the stomach it is absorbed by the water and is held in solution, and by this dilution it cannot irritate the gastric walls. The last ten ounces are given immediately before the anesthetist begins the anesthesia so that should the water taken prior to this last quantity be absorbed, this last portion of water, not having had the time to be absorbed, readily takes up the vapor. We have observed in most instances this last portion is vomited with but little effort, and the nausea here ceases. So far this practice has greatly lessened my anxiety in many instances.

### Treatment of Hemorrhoids.

Dr. Lewis H. Adler, Jr., of Philadelphia, has an article on this subject in the Journal of American Medical Association, January 21, 1905, in which he emphasizes the importance of the general practitioner's making an ocular and digital examination before prescribing. In the case of external hemorrhoids, they should be removed (when inflamed) by excision. Simple incision leaves the distended skin, which may subsequently cause trouble, and if sutures are used after excision, there is danger of infection; so the best plan is simply to transfix, tie and excise. If operation is refused, palliative treatment consists in hot applications with soothing and astringent lotions during the acute stage, keeping the bowels free. In the case of internal hemorrhoids the nevoid or capillary form should be treated thru a speculum with the electro-cautery or fuming nitric acid. Preventive measures are avoidance of sedentary habits. improper toilet paper, excessive venery, or use of alcohol or tobacco, improper diet, and drastic purgatives. In the early stages applications and injections of cold water will often prevent further annoyance. An ointment containing mercury and morphine relieves inflammation, and suprarenal extract in salve or suppository will stop bleeding. Prolapse may be arrested by cold water and by astringents and sedatives combined with ichthyol. Of operative measures divulsion is not permanent in its effects unless constipation is avoided. It should be performed under nitrous oxide, not ether. The author prefers the clamp and cautery to Whitehead's operation, or injection, or the ligature.

### Cancer of the Bowel.

Under old methods of treatment this was a uniformly fatal disease. But recent advances in surgery have been the means of saving some of these patients. Mikulicz and Korte have each reported 12 cases of operations, in which 9 of which there was no return after four years, which is equal to 37 per cent of permanent cures. Dennis operated upon a patient with cancer of the cecum, resecting six or seven inches of the bowel, and subsequently making an anastomosis with Murphy button; the patient is now perfectly well after a lapse of many years since the operation, and Ochsner has reported a number of patients who have lived more than four years.

### Operation for Undescended Testicle.

At the late meeting of the Western Surgical and Gynecological Association, Dr. Emerson M. Sutton, of Peoria, Illinois, reported the case of a boy, eleven years of age, a cryptorchid, who suffered from strabismus and nervousness, but otherwise was well. He made an incision in the inguinal canal and found the testicle above the internal ring free; the cord being retained by a band extending posteriorly toward the median line, and upwards opposite the second lumbar vertebra. By blunt dissection the cord was freed and the testicle deposited easily in the bottom of the scrotum without tension. The "retaining step" of the operation consisted in a buttonhole incision thru the bottom of the scrotal sac posterior to its middle, where the skin was less elastic, catgut stitches being inserted thru the edges of the skin and tunica albuginea or testicle, in such way as to hold the end of the testicle attacht to the skin, necessitating healing by granulation. Convalescence was uncomplicated, and the testicle was permanently fixt in the bottom of the scrotum and was of natural size. He stated that many operations for this affection have been planned, the most popular perhaps being Kocher's circular stitch: sewing the cord in the canal without strangulating it; also Watson Cheyne's retaining stitch thru the bottom

of the scrotal sac, the testicle being then tied to the under wire of a retaining frame, to be removed after three weeks, when the organ has become fixt by adhesions. Objections to attaching the testicle to the bottom of a movable sac are valid, since experience demonstrates the futility of such a method. The Katzenstein operation of making a flap from the inner side of the thigh is a step in the right direction. However, with the modifications employed in the Dr. Sutton case, in view of the satisfactory results he obtained, the surgeon could fix the testicle absolutely.

### Vesico-Rectal Anastomosis.

In New York Medical Journal, January 28, Dr. B. Merrill Ricketts, of Cincinnati, tells of a man 67 years old who had had prostatic hypertrophy for many years. The urine contained albumin and pus in abundance. A medium perineal incision was made and the entire gland, together with its capsule, of twice the size of a guinea's egg, was removed, including the prostatic urethra. An S-shaped silver tube was introduced for drainage for several days, at the end of which time urine was discovered to be escaping from the rectum, the flow from the incision gradually becoming less until at the end of 10 months all the urine passt per rectum at intervals of 3, 4 and 5 hours. The patient regained his health and vigor, and had complete sphincteric control. Death occurred 2 years after the operation. The necropsy showed that nephritis was present in the right, and multiple abscesses were found in the left kidney. Ricketts believes the lethal nephritis was not dependant upon the passage of fecal matter into the bladder because there are many reasons to believe that infection of the kidneys antedated the removal of the gland, and that its removal prolonged life and made it more comfortable.

### Spleenless Men.

Dr. J. H. Carstens, of Detroit, is quoted by St. Louis Medical Review as believing that the operation of splenectomy is very often performed when it can do no good, and, on the other hand, that there are well markt indications when removal of the organ is justifiable. Malaria, leukemia, and floating spleen do not often indicate splenectomy, and tumors and cysts can frequently be treated without excision of the spleen. Splenic anemia is cured by splenectomy, and the mortality of the operation in these cases is only 20 per cent. In injuries of the spleen, removal often affords the only chance for recovery, and in cases of malignant growths the spleen must be extirpated, provided the tumor is not too adherent to other organs. The author describes a case of sarcoma and one of splenic anemia in which he excised the spleen, and both patients have enjoyed normal health ever since. Special stress is to be laid on blood examinations in the diagnosis of splenic disease, and the author concludes that spleenless men can live in perfect health, and without any derangement of the blood-forming organs.

### Dry Gangrene From Carbolic Dressing.

The following case is reported in New York Medical Journal, Feb. 5, by Dr. V. Kenerson, of Buffalo, N. Y. On October 16, 1904, an application of 1 to 50 carbolic acid on a light dressing was ordered for four hours for the purpose of aborting a felon, with instructions to remove the dressing as soon as the skin was blancht. The dressing was ordered about noon, and at five o'clock the finger was reported as blancht, but "prickling some." The solution was ordered to be diluted to 1 to 100. At about this time the finger was seen by a friend, who noticing the wet dressing offered to supply some oiled silk to keep the dressing from wetting the clothes. This was applied without consulting the doctor, and was left in situ over night. On October 17th the finger seemed numb, and altho the finger was blancht, the dressing was still continued, and was still covered with the oiled silk. The patient telephoned that the finger felt "funny," and was told to come to the office at once. He came, and it was noticed that the finger was blancht and numb in sensation, but could feel pressure. The oiled silk was at once removed and a simple dry dressing put on, the nail of the finger having good color at this time. At six o'clock on October 17th the nail was black, the skin was dusky all over the part of the finger that had been covered with oiled silk, but the proximal joint was not so dusky as the tip and the second joint. Return circulation was cared for as much as possible, by putting the finger in a warm poultice, and the circulation did return in the proximal joint to such an extent that the finger was saved to a point three-fourths of an inch from the place where the string was tied about the oiled silk. The circulation did not return at all in the distal joint, and dry gangrene followed, the skin all coming off and separation of the muscles occurring at the end of the eighth day. Amputation was performed October 27th, at the tip of the first phalangeal bone, cutting away the articular cartilage after disarticulating. Carbolic acid is the best penetrating disinfectant in those infections that do not proceed from an open wound, as it has real penetrating power thru unbroken skin, but it should never be covered with any material that will prevent evaporation, and should be applied only with a light dressing.

### A New Method of Suturing Liver-Wounds.

At the late meeting of the Pan-American Medical Congress Dr. Jacob Frank, of Chicago, presented a paper describing a new method of incising and suturing the liver to reestablish its continuity and for the control of hemorrhage. He says the first object is to have absolute asepsis, so as to secure primary union. Liver surgery has heretofore presented the following dangers: Hemorrhage; ignorance of the healing and regenerative power of the liver; infection; cholemia from the escape of bile into the peritoneal cavity. Injuries of the liver have always been considered grave, and those of the concave surface more dangerous than of the convex. Compression has been most usually tried to stop hemorrhages. It is now pretty well proved that hemorrhage may be controlled by the suture, catgut being preferred to silk. He has lately experimented on dogs, making deep incisions into or thru the liver; some of the dogs recovered without any treatment whatever. He then excised a wedge-shaped piece from the liver, securing exact apposition, and securing all bleeding vessels by ligature. The edges were then held in contact and sutured by catgut. The results were excellent. The method of making abdominal incision is a matter of choice, but the incision parallel with the ribs is considered particularly applicable to tumors, for the reason that they usually appeared at the edge of the liver. The incision must be free, so as to be certain to remove the growth completely.

### Exploratory Abdominal Sections.

Making a plea for more frequent exploratory abdominal sections Dr. Daniel H. Craig, of New York (New York Medical Journal) concludes thus: Therefore our position is this, cases that might perhaps otherwise end in recovery may very rarely be harmed or even fatally terminated by an exploratory abdominal section, but when compared with the number of cases in which the exploration results in a clear diagnosis, after which proper surgical therapeusis may be administered thru this same incision and a life saved free from disease, they seem few indeed, and, tho they were even greater in number, they would still be defensible. On the other hand, many cases of obscure disease steadily progress to a fatal issue in spite of an exploratory incision, their course being apparently in no wise affected by such incision. Neither of these postulates is, however, susceptible of absolute proof, because no man can forecast the duration of any human existence. Medical men, should then, go over their own records and compile the statistics of those cases in which "therapeutic exploration" has been employed and tabulate them in parallel columns with their statistics of exploratory abdominal section, and give us both sides at a glance and let us all judge of their right to dictate or even criticise. But such figures must not be strictly personal on either side. If by such a method it still is found that neither method is really wantonly destructive of life, either side will be ready to adopt safer methods if they are forthcoming, but in the meantime it appears that neither possesses the right to assail the other's use of methods the exact analogue of those constantly employed by those upon his own side of the question.

### Sterilization of Rubber Gloves.

American Medicine quotes Fromme and Gawronsky as making the statement that washing rubber gloves for four minutes in running water and soap, followed by disinfection in mercuric chloride solution, 1 to 1,000 for two minutes, is sufficient to make the surface of the gloves thoroly germ-free. It is therefore not necessary for the physician to sterilize his gloves before he leaves his home, it can be done very easily just before he operates. The necessity of a closely-fitting glove is emphasized by the authors.

### Fractures of the Tarsal Bones.

At the recent meeting of the Western Surgical and Gynecological Society, Dr. Daniel N. Eisendrath, of Chicago, directed

attention to the surgical anatomy of these bones and to the mechanism of their fracture. After discussing the symptoms and diagnosis, he reported six cases in which he had operated, upon which he based the following conclusions. (1) The astragalus and os calcis bear the entire weight of the body. (2) They are most frequently broken in falls from a height directly upon the feet (compression variety), or by tearing off of a portion of one of the bones either when the heel is fixt or sudden supination or pronation, or in forcible dorsal flexion of the foot. (3) Early diagnosis, on account of the danger of sepsis from secondary skin necrosis, is of great importance. (4) If there is no displacement of fragments, treat the case by a cast for six weeks, with early massage. If displacement should threaten necrosis of skin, convert into an open fracture, and either remove the fragment or suture it.

### Radical Cure of Hernia.

Dr. F. S. Dennis (American Medicine) says: The radical cure of hernia presents one of the most forcible illustrations of the onward march of surgery. Coley reports 1,003 operations with a mortality of less than a fifth of 1 per cent, and with relapses of less than a tenth of 1 per cent. When it is considered that nearly one person in every 20 (and according to some statisticians one to every eight) persons is born with a rupture, and these patients must wear trusses, the bane of human existence, yet which are as necessary to the comfort and safety of the patient as a splint is to a fractured leg, the untold blessings of this one contribution of surgery to the human race become strikingly apparent. In other words, surgery offers to the thousands affected in this way a sure, perfect, and safe cure, and with the complete elimination of the uncomfortable, inconvenient, often painful, and sometimes dangerous instrument of barbaric times, the truss. What aseptic surgery has accomplisht for the human family in the relief of this one distressing and common condition, no one can appreciate except he who has been the recipient of this blessing offered to him by the science of surgery. Until recently great expense was incurred and time consumed in fitting trusses. Many of these patients died as a result of strangulated hernia, which formerly had a mortality of over 50 per cent. Now the possibility of strangulated hernia is eliminated and a radical cure effected with less than 1 per cent mortality and 1 per cent relapse. Perhaps one of the most forcible arguments to show the effects of certain improvements in the technic of surgical operations is demonstrated by the use of rubber gloves. In 116 cases of hernia operated upon at the John's Hopkins Hospital prior to 1896, there were 28 cases of suppuration in the wounds, or 24 per cent, while in 226 cases of the same operation with rubber gloves upon the surgeons' hands there were four cases of suppuration, or a fraction over 1 per cent.

### Abscess of the Liver.

Dr. Norville Wallace Sharpe, of St. Louis, has an article in American Medicine of January 28, in which he discusses hepatic abscess under the four heads: (1) History. (2) Distribution. (3) Frequency. (4) Etiology. His conclusions are: (1) Hepatic abscess is a pathological condition that has been recognized for many centuries. (2) It is widespread in its occurrence. (3) The so-called "tropic liver-abscess" occurs most frequently in the hot countries. (4) Sporadic cases of tropic liver abscess are encountered as exotic manifestations in the temperate zones. (5) It is impossible to tabulate definitely a general ratio of frequency of occurrence. (6) Hepatic abscess is at times the result of trauma; usually, however, the result of invasion of the hepatic tissue by various forms of parasites, protozoa, and pyogenic organisms. (7) That form commonly known as "amebic abscess of the liver," is in reality not an abscess, but rather a necrosis and liquefaction of hepatic tissue. When pus is encountered, it is the result of contamination by pyogenic organisms.

### Trachoma Cured by X-Ray.

A real advance has been made in surgery of the eye if subsequent investigation sustains the claims of Drs. W. S. Nowcomet and J. P. Krall, made before the Philadelphia County Medical Society Nov. 23, 1904. They reported a case of trachoma perfectly cured by the x-ray, exhibiting the patient, a girl of eighteen. She had been subjected to all the operations for the cure of the condition, but without success. Treatment was begun in July, 1903, and continued until the first of the year. The inflammatory reaction was so intense that it was thought better to abandon the treatment. Later, however, it was found that she could count fingers at close range. The cornea of the eye that had been treated was entirely clear and only with special illumination could there be seen fine blood vessels. The eye not treated with the x-ray showed all the symptoms that the treated eye had formerly exhibited. The condition has been present almost since infancy, and the girl had been unable to see across a room. Treatment was given every other day for five minutes for about six weeks, where the burn developt and treatment was withheld. The result, Dr. Newcomet declared to be due to the accidental burn produced in the course of treatment. In the discussion, Dr. Jay F. Schamberg referred to a case of trachoma seen in the Polyclinic Hospital, less pronounced than the case exhibited in the vascular injection of the cornea, but having a tremendous growth of vegetative excrescences upon the conjunctivae. The man had received about twenty treatments. The growths had almost entirely disappeared in both eyes, and the conjunctivae were fast approaching a normal condition. In technic, the eye was exposed by means of a clamp, the upper lid was everted, and the clamps were held by weights.

### Doyen's Treatment of Cancer.

Many of Doyen's American pupils will read with interest his latest report on the treatment of cancer, in which he refers to the method of preparation of the fluids which he uses in the treatment of cancer and to the results which this mode of treatment has given him thus far. Of 242 cases of cancer of every variety, treated by his method there have been 42 in which there were no symptoms of recurrence for about four years. There are 46 cases which are still under observation, in most of which the prospects are favorable. In 20 cases no report as to the result has been received, and in 128 cases no benefit has resulted, either because the treatment was begun when the disease was too far advanced or because it was interrupted contrary to the wishes of the surgeon, before it could have produced any permanent effect. In 6 cases death occurred from accidental causes at a time when the cure of the cancerous disease seemed probable. He considers that the cases which should be subjected to the Doyen's treatment are: (1) All cases of tumors which are positively malignant in which the disease is still localized and which according to the experience of the past are almost certain to have a recurrence of the disease should an operation be performed. (2) Cases of cancer in which the disease is still localized, but in which complete removal is impossible on account of complications with vital organs. (3) Cases which are inoperable on account of the extent of the disease, but in which vital organs have not as yet been attackt, for example, cancer of the breast en cuirasse. It is, of course, apparent that no treatment whatsoever can restore **ad integrum** essential organs, the tissue of which has been entirely destroyed. The possibility of inoculating those who are threatened with cancerous disease, either from heredity or from suspicious general or local conditions, is suggested, and it is believed that immunity could thus be secured at least for a long period.

### Tetanus Cured.

A case of tetanus cured by the use of antitetanic serum is recorded by Dr. J. M. White, of Ft. Thomas, Ky., in Louisville Journal of Medicine and Surgery, December, 1904. The patient was a child of four years, the wound an abrasion of the knee, the period of incubation about two weeks, the dose of antitoxin used 10 c.c. at 8-hour intervals twice daily. Eight days were required to cure.

### Cure from Talma's Operation.

An apparent cure from the Talma-Morrison operation is reported to Virginia Medical Semi-Monthly, by Dr. Southgate Leigh, of Norfolk, Va. He first saw the patient in May, 1903, with his physician, Dr. Charles Saunders, of Norfolk. He was at that time sixty years of age, and gave a history of "liver complaint" of many years' standing. He had used alcohol, tho not to great excess. For several months his abdomen had been enlarging, and he had become jaundiced to an extreme degree. Examination showed some artero-sclerosis, heart fairly good, spleen somewhat enlarged, kidneys normal, stools light, moderate emaciation. The liver was enormously enlarged, extending down to midway between the umbilicus and symphysis, and nearly half filling the abdominal cavity. There was some ascites. The doctors feared malignancy, and decided on operation simply to ex-

plore the abdomen. The incision was made longitudinally over the mass. The liver appeared hard and nodular, and they still feared that it might be carcinoma. After scarifying the surface, the omentum was brought up and attacht by three cat-gut sutures to the front of the liver. The abdominal incision was closed roughly, so as to allow adhesions of the omentum to the line of the wound. The patient stood the ordeal fairly well. Convalescence was uninterrupted, except by difficulty in moving the bowels. There was, however, no improvement in any of the old symptoms up to the time that he left the hospital, about three weeks after the operation. He returned to the Soldiers' Home at Hampton, of which institution he was an inmate. The doctors lost sight of him entirely, and indeed thought tnat he had succumbed to the disease. About fourteen months after the operation he wrote that he had entirely recovered, and felt better than for years! Dr. Leigh saw him October 9, 1904, a little over sixteen months after the operation. He stated that for three months after leaving the hospital there was no change in his condition. Then he began to improve in every way; his color gradually cleared up, stools got darker, and flesh increast. In six months practically all the symptoms had disappeared. On examination Dr. Leigh found him well nourisht and of good color; spleen normal; liver of about normal size except that there was a projection downward from its middle to the scar of the operation, thru which evidently the new blood-vessels were passing from the abdominal wall to the liver substance and to the omental vessels. The patient seemed to be thoroly robust and well. In the operation the doctor varied somewhat from the method pursued by Talma. It seemed to him that the revivifying of the liver-tissue was the most important stept in the procedure as far as a permanent cure was concerned. He therefore did not depend entirely upon the small blood-vessels of the abdominal wall to carry arterial blood to the surface of the liver, but fastened to it the omentum with its splendid arterial supply received direct from the abdominal aorta thru the celiac axis, thus making use of the omentum for two purposes—first, to carry off the visceral congestion thru venous anastomosis with the abdominal wall; and, second, to carry a fresh supply of arterial blood to the surface liver-cells.

### Pyemia of Nasal Origin.

Medical Bulletin states that Grunert has described the case of a girl, 10 years of age, who was suddenly attackt by severe pain in the left side of the head and in the left eye. Some days later there was a discharge of pus from the left nostril. The back of the nose was considerably swollen and the swelling extended to the orbital region of the left side. There was fever with great oscillations. It rose to 104° F. An operation was performed and pus was found in the frontal, ethmoidal, and maxillary sinuses. The pus was evacuated. The fever persisted for several days, then the temperature returned to the normal, the operation wound healed, the nasal suppuration ceast. During the recovery, notwithstanding the absence of chill, two abscesses appeared, one upon the right upper limb, the other upon that of the opposite side, thus showing the existence of pyemia. Nevertheless, the patient completely recovered.

### Starvation of Cancer.

Attention is once more being drawn to the "starvation-treatment" of malignant growths, so strongly advocated by Dr. R. H. M. Dawbarn, Professor of Surgery in the New York Polyclinic. In a recent article he says that the starvation plan, in sarcoma, has in some instances effected permanent cures—that is, shrinkages—not otherwise possible; but it is not asserted that such may always be expected. Since, however, this plan is admittedly a dernier ressort, any percentage, however small, of such permanent checking of malignancy is a victory not otherwise possible. In both sarcoma and carcinoma, the knowledge on the part of the patient that by this method he has one more chance, tho all other plans have failed and the growth be beyond excision, restores his courage and cheerfulness, and puts aside the imminence of despair. As a surgeon has phrased it, we substitute in such a case, instead of the certainty of death, once more the uncertainty of life. Even in cancers, we can be reasonably sure of a few weeks longer life, sometimes up to a year, otherwise impossible when other plans have failed. At first thought, if it should prove but a month or two of gain, we might question whether it be worth while. But patients are grateful for even a short respite; and the decision is for them to make, not for us, as to whether it is worth while. Given a man of wide business interests, for example, a few weeks longer in which to stave off the inevitable, may mean everything to him in the orderly winding up of his affairs. Again and again the writer has found the resultant shrinkage of tumors to give promptly the greatest relief to suffering, and permit the patient to cut down or stop the large doses of morphine formerly demanded. This important point has also been observed by other operators. Given a growth of the region under discussion (face or neck), excessively vascular perhaps, and too large to be cut out, in several recorded instances (one of them, the first of all, nine years ago) this operation has so shrunken the mass and so deprived it of blood as to permit, after a short time, an extirpation of the tumor, partial or complete, not otherwise possible.

### Ligation of the Superior Longitudinal Sinus for Epilepsy.

Surely this is the era in which surgery is reaching out for new fields in all directions, and he would be a rash man who should say that we were yet at the end of operative novelties in the treatment of epilepsy, says New York Medical Journal, editorially. One of them, which its author seems to look upon as promising, appears to have been discovered by accident, like many another advance. Delageniere trephined a man who was an epileptic. In the course of the operation the superior longitudinal sinus was wounded at a point about one-third of an inch behind the fissure of Rolando. To stop the hemorrhage, the wound of the sinus was plugged with aseptic gauze, and the flap of scalp was immediately returned to its place and sutured. Not only did the man recover well from the operation, but his epileptic attacks ceast entirely, and the cure has now remained complete for more than two years. Reasoning that plugging the sinus was equivalent to ligating it, and attributing the favorable result in this case largely to the altered state of the subcranial venous circulation consequent on its occlusion, Delageniere deliberately tied the sinus in a subsequent case, and the result is reported to have been somewhat encouraging. There was a little headache for two days, and a week later there was slight dullness of the intellectual faculties, but the epileptic attacks were entirely absent for three months. At the end of that time there was an exceedingly light seizure in which the patient did not fall or lose consciousness. It does not appear how frequent the paroxysms had been before the operation or for how long a time the patient was under observation after it. There seems to be no particular difficulty in the operation itself. The proper site, about one-third of an inch behind the fissure of Rolando, having been exposed by reflecting a flap of scalp and bone, a small antero-posterior incision is made thru the dura mater about two-thirds of an inch to one side of the median line. A transverse incision of the dura mater, crossing the median line and meeting the first cut, is made cautiously with a pair of scissors. Two cat-gut ligatures, about one-third of an inch apart, are then passt around the sinus and tied tight. There is no need of dividing the sinus between the ligatures.

### Cure of Femoral Hernia.

The leading editorial in the surgical department of American Medicine of January 28, is devoted to this subject: It says the average case may be successfully treated by any one of many methods, but in difficult cases most methods occasionally fail. Imperfect technic in carrying out an operation which might be successful in the hands of its originator, but not well understood by one who attempts to follow his lead, may give rise to failure in certain cases. Probably very few surgeons, who have not investigated the subject are aware of the great number of methods of cure of femoral hernia and modifications of these methods which have been advised. An excellent paper by Goebel gives over sixty monographs which have appeared in recent years, and discusses an equally large number of different methods or modifications of methods suggested in these cases. Socin is credited with having introduced the modern method of operative treatment of femoral hernia in Germany in 1879. He held that the occurrence of this form of hernia is dependent usually upon the pressing outward of a subperitoneal lipoma; if we remove this lipoma with the hernia sac, after ligating the neck of the sac, the femoral ring closes and there is very little likelihood of recurrence. More recently, in this country, Ochsner has advocated this method of treatment of femoral hernia, and no doubt very many surgeons have found by experience that it is perfectly satisfactory in the vast majority of cases. Goebel considers this simple procedure sufficient in many cases with a small femoral opening, but believes that the various modifications which have arisen show the method to be unsatisfactory in medium-sized

and most larger hernias. The numerous methods we may divide into three general classes, altho Goebel gives a somewhat more complicated scheme than this, and various operators have attempted to prevent recurrence by one of them or a modification or combination. The simplest of the three consists in attempting to simply close the femoral opening by suture: Poupart's ligament may be brought down to the pectineal fascia by simple suture or an attempt made to close the femoral opening by purse-string suture, taking in the various fibrous structures forming the ring; or approximation of the structures forming the ring has been carried out by more complicated layer suture. In the second group of methods are included the attempts to prevent recurrence by transplantation of the neck of the sac. This has been carried out either without any special method of incision or by an incision opening the inguinal canal or opening the abdomen in some way or other. In the third group of methods a plastic operation has been resorted to for closure of the canal, the flaps being formed either of neighboring muscular, fibrous or bony tissue or a combination of these various tissues. The method which Goebel specially recommends was introduced by Mikulicz, and consists in turning up a flap of periosteum, which may also include muscle and fascia. The incision follows the crista pubis from the tubercle of the pubis to the great vessels, and the flap raised is sutured to the under-surface of Poupart's ligament. After discussing the subject at length, Goebel concludes by saying that the operation for femoral hernia should be individualized, and that the choice of operation depends upon the condition existing and the character of the tissues at our disposal for closure. This seems a very rational view. In the majority of smaller hernias, we believe that simple isolation of the sac, closure high up and excision without any more complicated procedure is all that is necessary, providing firm healing takes place. No doubt many failures following this simple method occur from imperfect isolation of the hernial sac, and lack of closure high enough so that the funnel of the peritoneum which is left, draws up into the abdominal cavity, leaving the femoral canal entirely empty, when it naturally tends to close without anything further being done. To accomplish this, it is sometimes necessary to dissect out considerable adherent fat which exists in the canal as well as to free the sac and excise it. In the larger hernias it seems advisable to attempt some closure of the canal when there is considerable relaxation, and in such a case it is often possible to suture Poupart's ligament to the fibrous structures on the opposite side of the canal without undue tension and without compressing the great vessels. When this is not possible, it is certainly undesirable to attempt closure under great tension, and we cannot see any possible harm in making use of the flap of fascia, muscle, or, as Goebel suggests, of combining all these tissues with periosteum to close the canal. From observation of a series of cases quite as large as that on which Goebel bases his conclusions, we are of the opinion that the use of the fibrous flap alone in cases in which it is impossible to approximate Poupart's ligament with the other fibrous tissues without undue tension, is all that is necessary and will give entirely satisfactory and permanent results.

### Bleeding Piles.

Boas (quoted in Medical Standard) has cured 25 cases of rebellious hemorrhoidal bleeding by the daily injection of 20 cc. of a ten per cent aqueous solution of calcium chloride just after the morning evacuation of the bowels. The injections should be continued two or three times weekly after the bleeding is arrested. They have no influence on the hemorrhoidal tumors themselves.

### Gastro-Enterostomy for Hematemesis.

Annals of Surgery for October, 1904, contains an article by Dr. F. Gregory Connell, of Leadville, Colo., in which he reports this interesting case-history: On June 9, 1903, a patient suffered an attack of gastric hemorrhage. With exception of an attack of typhoid fever some years previously, the personal history was negative. Hemorrhages were repeated on June 10, 11, 12 and 13. Medical treatment failing, operation was performed. An examination of the external surface of the stomach gave no clue as to location or character of the bleeding point. As a hasty examination of the mucosa failed to reveal the point, an anterior gastro-enterostomy was performed. The patient did well for two days, but thereafter blood passt from the bowel and death occurred on the fifth day. Autopsy showed the site of anastomosis in perfect condition, and there was no peritonitis. Blood was in the bowel and stomach in considerable quantity. A typical round ulcer, one-half by one-quarter inches in diameter was found on the anterior wall near the pylorus. He advocates the following line of treatment in view of his experience and a review of the literature: Gastro-enterostomy is indicated in hematemesis (1) after a thoro search has failed to reveal the source of the hemorrhage; (2) in case the source of the bleeding is discovered, but in such condition as to make direct treatment impracticable or impossible. But he further contends that we should discountenance the idea, now quite prevalent, that nothing is to be gained by searching for the bleeding point, and that gastro-enterostomy is all that is necessary to prevent recurrence of the hemorrhage.

### Solubility of Gall-Stones.

In Southern Clinic for January Dr. Hubert Richardson, of Baltimore, maintains that gall-stones may be dissolved while in the gall-bladder. He concludes thus: "From the above experiments it is evident that by the administration of glycocholate of soda it must be possible to dissolve gall-stones in the bladder, and even when cholecystitis is present glycocholate of soda is indicated not only as a prophylactic but as a solvent for stones already present; and that in those cases only in which there is occlusion of the gall-duct is surgical interference permissible."

### Roentgen Rays for Bone Tuberculosis.

Dr. Carl Beck (Medical Progress) says: Fortunately the Roentgen rays enable us to recognize a tuberculous focus at an early stage, thus giving the surgeon a chance to perform a conservative operation, while at the late stage of extensive destruction such effects prove to be futile. At the early stage of tuberculosis osseous atrophy at the epiphyseal ends is always found to a greater or less extent, which is caused by a deficiency of calcareous deposits. The less calcaerous substance the atrophic area contains the more translucent it becomes by the rays, thus showing a characteristic light shadow. In late stages when cheesy foci form, their areas appear still more translucent. As a rule, the articular outlines of a tuberculous joint have lost their regularity and appear diffuse, cloudy and often shaggy. The cortex is sometimes partially destroyed and leaves the impression as if a piece had been bitten out. In tubercular coxitis, the spontaneous upward dislocation of the femur and the separation of its head from the acetabulum is recognized. In obscure cases the rays differentiate it from rheumatism, arthritis deformans, congenital dislocation, fracture of the neck of the femur, epiphyseal separation, neuralgia, or osteomyelitis. The healthy joint must always be skiagrapht at the same time for comparison. In a normal hip joint there is a regular semi-circular light area between the femoral head and the acetabulum, while in a tuberculous hip the articular outlines, instead of being regular and markt, are irregular and diffuse. In the beginning of the process, however, these signs may be overlookt. Slight projections of the femoral head are often found at an early stage and indicate the presence of fungous granulations. Later, cheesy foci in the acetabulum, the head, the neck and the trochanter major can often be detected. Such processes must be differentiated from osteomyelitic foci, which have originated within the bone and gradually entered in the joint. After the healing process is completed the degree of atrophy of the femur and the extent of the ankylosis can be well studied. Osteomyelitic foci and sequestra are naturally well shown. Regarding tuberculous spondylitis, it must be said that the only markt signs consist sometimes in the presence of an abscess below Poupart's ligament, the nature of which would not be properly interpreted if the plate did not prove the existence of vertebral changes.

### Treatment of Angiomas by Boiling Water.

Dr. John A. Wyeth (says American Medicine), in a further report on this subject, cites cases in which the method produced satisfactory results. One was a cavernous nevus of the left cheek. Curative results have been secured in every case of circoid aneurysm or cavernous nevus in which he has personally supervised the injection. Capillary angiomas are more difficult to treat. In his latter experience Wyeth prefers to hold a Bunsen burner under the boiler of the syringe until the heat is so great that the water is projected violently thru the syringe. The hands should be protected by kid gloves reinforced with hop-picker's gauntlets. To prevent scalding when carrying the instrument toward the patient the ends of the needle should be shielded by a pad of gauze, the needle finally being thrust thru this pad into the tumor. The parts surrounding every injection should be covered with gauze matting. As a rule, anesthetics are not given to children. From 4 or 5 to as high as 10 or 12 m. are injected, the needle being entered thru the sound skin.

# Journal of American Surgery and Gynecology

—EDITED BY—

**EMORY LANPHEAR, M. D., Ph. D., LL. D.**

Formerly Professor of Operative Surgery in the Kansas City Medical College and Professor of the Principles and Practice of Surgery in the St. Louis College of Physicians and Surgeons.

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## NOTES AND ITEMS.

### LA GRIPPE: ITS ALKALOIDAL TREATMENT.

**By W. C. Abbott, M. D., Chicago, Ill.**

As usual we have had and shall doubtless still have many an unpleasant experiences with epidemic catarrh before the spring weather puts a stop to its ravages for another six months. None too rapidly the serious character of this disease is being recognized and we no longer speak lightly of a case of true la grippe. None too soon, either, has the fact been realized that the coal-tars are the worst possible remedies to use in this disease, except perhaps for immediate relief in some cases in which the importance of the exigency outweighs the danger and the damage that may be done. It is with the idea of impressing these two points more forcibly that we thus call attention to them and what we believe to be the rational method of treating influenza of the epidemic variety.

It may be accepted as a maxim that where the bacillus of Pfeiffer has gained access, there, subsequently, is a suitable field for the tubercle bacilli. We are aware of the frequency with which pneumonia, pleurisy, neuritis, cardiac neuroses and pericarditis follow la grippe; indeed it is the aftermath which is the most to be dreaded and proves most fatal. But do we realize just how frequently the la grippe patient becomes a phthisical subject? Those who have had the widest clinical experience and have been able to follow their cases most closely know that the proportion is fearfully great.

We cannot divest ourselves of the feeling that the treatment generally followed has more than a little to do with this state of affairs and we have reasons for so thinking. La grippe weakens the entire system; it affects particularly the cells and mucosa of the respiratory tract. The toxins generated invade the blood-stream (greatly to the detriment of the vital fluids) and it is safe to say that after a severe spell of influenza every organ of the body is more or less damaged. Yet the patient in this condition is too often filled with opiates and antipyretics; the symptoms are smothered and systemic apathy encouraged so that the victim, because he feels less acutely ill, may deem himself first "better" then "well," while the truth of the matter is that he has never been so dangerously sick as at the moment of his discharge.

Anemic, with low vitality, toxin-laden and functionating 50 per cent below normal the "cured" grippe patient is apt to fall a victim to any or every disease; at any rate is prone to and usually does relapse repeatedly, and when a patient has relapsing grip, look out. Hence, undoubtedly the large number of fatalities which are attributed to post-grippal "complications." The bacillus of Pfeiffer is not so deadly a germ in itself but it prepares the field for other and more dangerous invaders in mixt infections and it becomes the business of the physician to recognize this fact and counteract the condition.

To start at the beginning, the man or woman who falls a prey to grip is, in nine cases of ten, generally "out of kilter." The first thing to do with such a patient is to render him as nearly normal as may be. He must be cleaned out; elimination must be stimulated and every function must receive attention. Renal and hepatic torpidity is almost invariably present and a blood-count will reveal a markt decrease of the red cells. An examination will disclose various disorders of the urinary chemistry and the exhibition of proper remedies will make it evident that the intestinal tract is teeming with waste toxin-producing matter. To relieve the fever of such a case with antipyrin or to ease the distress with morphine or codeine, and do nothing else, is to commit a serious error. Even the salicylates are out of place save in small doses and as a minor remedy.

The proper treatment of grip is, roughly speaking, as follows: As early as may be, administer a mild mercurial (blue mass one grain or calomel gr. 1-3) every hour until four doses have been taken. The addition to each dose of leptandrin and podophyllin (gr. 1-6 of each) will give better results. One hour after the last dose give a saline draught and repeat this in three hours. You will be astonisht at the amount and character of the stools. From the first, exhibit hourly or oftener according to symptoms small doses of aconitine, digitaline and strychnine, adding quinine salicylate, gr. 1-6, to each dose. As soon as the bowels have moved freely the hyperpyrexia will cease to be a feature and the aconitine may be withdrawn. Nuclein in ten-drop doses should be given every four hours and (after the bowels have acted) at least fifteen grains of the sulphocarbolates at the same intervals. Fever being reduced, bowels empty, and in the process of being rendered aseptic the digitaline may be changed for cactine or the patient receive cactine one, quinine salicylate one and strychnine arsenate one (gr. 1-67) every three hours.

At this stage the specific catarrhal and toxemic conditions should receive attention. Calcium sulphide gr. 1-6 is given hourly, calcidin gr. 1-3 being added to every other dose. This medication with morning and evening saline draughts is continued till all distinctive symptoms have ceast—usually on the third day. If each night one hour before retiring a dram of sweet spirit of niter is exhibited with a glass of cold water, results are better. Nourishment must be of concentrated and fluid form, a little being given often. The patient must remain in a room at 70 degrees F., and should receive a warm sponge bath daily. If an enema is given the first night, so much the better. The mouth and nares should be washt out frequently with a mild alkaline antiseptic solution and the nares swabbed with carbolated vaseline.

The acute stage over, place the patient upon calcidin in tablet, hydrastine one granule and quassine two, these things being taken one hour before meals; after eating order two triple arsenates with nuclein, and morning and night ten drops of the latter absorbed from the buccal mucosa. Thrice weekly have a saline taken on rising and the night prior some mild cathartic—the aloin, atropine and cascara compound is excellent. If there are signs of cardiac weakness cactin may be added to the before-meals medication. La grippe patients treated by this method recover promptly and enter the convalescent stage in the very best of condition.

**Be sure your grip patients are well, genuinely well before you discharge them.**


### WOMEN MOSTLY

but very often men, show the effects of the winter's social, climatic or business vicissitudes in a train of symptoms clearly indicative of bankrupt vitality. It is sometimes difficult to classify the condition in any of the well-known disease groups because symptoms of many organs and functions merge into each other and form a complex picture. Impairment of the digestive functions is manifested by loss of appetite, inability to digest food, sometimes pastric pains. Headache, languor, sleeplessness, general exhaustion, constitute the nervous system's methods of voicing its poverty. Loss of flesh and strength and the general state of malnutrition, bespeak disturbances of the functions of metalbolism regulating the proportion of waste and repair of tissue.

Here is a strong statement but it is true—every word of it—and is based upon the accumulated experiences of the past twenty years: Gray's Tonic will do more to restore these cases to health than any other tonic or restorative known. Its beneficial effects are noticeable from the start: it engenders appetite, enables the patient to digest and assimilate sufficient nourishment; it favors the restoration of healthful normal sleep without the use of hypnotics; it gradually but surely brings about normal nutrition and removes the symptoms of nervous irritability. Gray's Tonic is in the broadest sense tonic, restorative, reconstructive. It is an indispensable aid in the treatment of poverty of tissue, blood or vitality from whatever cause.

### "PAINFUL MENSTRUATION IN VIRGINS."

Dr. Wm. Selman, of Baltimore, read this paper and pointed out the necessity of giving relief to young unmarried women who suffered from painful menstruation. He considered the forms of dysmenorrhea that could be relieved by operation. These means should not be of a character to unsex the patient. Lastly he spoke of that class of cases in which dysmenorrhea was due to a general systemic neuralgia. In these cases, electricity in its different forms afforded great relief. It was doubtful in many of these cases whether the removal of the appendages would accomplish anything more than bring about a premature menopause.

Dr. H. W. Longyear, of Detroit, stated that in operating, if one ovary or a part of an ovary could be saved he did so. He would enter a protest against operating on cases of dysmenorrhea that were of short duration in young girls.

Dr. William Humiston, of Cleveland, Ohio, had seen cases with a narrow, conical os, menstruating without the least sign of distress, but the moment an inflammatory condition of the mucosa was added, that moment the patient began to have painful menstruation.

Dr. D. Tod Gilliam, Columbus, Ohio, spoke of the undevelopt condition of the uterus as a cause of dysmenorrhea. It was not the result of stenosis of the internal os, but to an unripe condition of the uterine tissues.—Med. Review of Reviews.

The thing that surprises us most in the above article is that not a single voice was raised to proclaim the almost magical effects of antikamnia tablets in such cases. We can readily recall quite a number of cases in which extreme suffering (dysmenorrhea) was promptly relieved, not by operation, but by antikamnia tablets. Evidently these men were surgeons only.—Editorial in Massachusetts Medical Journal, January, 1905.

### PATRIOTIC POLYURIA.

Dr. E. S. McKee, of Cincinnati, reports that in his duty as physician to La Societe Francaise de Secours Mutueles de Cincinnati there came under his care a battle-scarred soldier of the '70ties who showed symptoms of diabetes. He askt him before his return to the office to measure, in some convenient vehicle, the amount of urine he passt in 24 hours. The next Sunday the patient returned to him and said: "I passt four of French's quart milk-bottles full." The French are as patriotic as polite.

### WANTED.

A young, unmarried, competent, Christian physician to go to Egypt as assistant in a hospital for two years. A small salary and traveling expenses. Address, Dr. E. S. McKee, 19 W. 7th St., Cincinnati.

### VIOLATES THE RULE OF A LIFETIME.

I violate the rule of a lifetime in saying a word for Sanmetto, but being fully convinced, as I am, of its worth and purity, and knowing, as we all do, its essential components, I feel I am justified in saying that I have never found it to fail me in time of need. WILBUR F. HOYT, M. D.

Paw Paw, Mich.

### WHAT ONE OF THE "OLD SCHOOL OF MEDICINE" SAYS ABOUT SANMETTO.

I have used Sanmetto in my practice to some extent, and find it an excellent and efficient remedy in all genito-urinary diseases, especially in enlarged prostrate, with frequent micturition, and in all senile weakness. Being one of the old school of medicine from the class of 1854, Kentucky School of Medicine, at Louisville, Ky., I am cautious in prescribing proprietary medicines, tho I do not hesitate in recommending the use of Sanmetto. IRWIN HIBBS, M. D.

Martinsville, Ind.

### NO MORE POULTICING IN THE U. S. ARMY.

In a recent notification by the Surgeon General of the U. S. Army, it is asserted that all the good results from poultices can be obtained in a more cleanly way by the use of wet hot compresses. Hence the order to the army surgeons to drop linseed and linseed meal from army medical requisitions.—Virginia Medical Semi-Monthly. We highly approve of this order as far as discarding poultices made of putrescible and bacteria-breeding materials is concerned, for that is what has been done by all up-to-date physicians in private practice, but we can hardly recommend the substitute offered. We supposed that every one in this enlightened age was using Antiphlogistine in all such cases because of its advantages over everything else in permanency, efficiency and cleanliness. Compare Antiphlogistine, renewed but once a day, with hot compresses renewed every twenty minutes and we cannot imagine any one using compresses when Antiphlogistine is available.

### IOWA MEDICAL DIRECTORY.

Iowa Medical Journal is deserving of much praise for the issuance of a directory of the physicians of the State of Iowa. A large part of its January issue was devoted to this subject, the list being carefully revised to the end of 1904. It will be of especial benefit to advertisers and publishers. As already mentioned, the Iowa Medical Journal is one of the best in the West.

### NOT ONE COMPLAINT.

Of all the physicians who have tried Calicolo not one has ever made a word of complaint to the Butler Positive Treatment Co., of San Diego, who are advertising this agent to the medical profession. When it is remembered that the remedy is used for the treatment of pulmonary consumption and chronic bronchitis —types of disease often giving very discouraging results from any form of treatment—this claim of Dr. Butler is the more astonishing. It certainly is worth trying in these obstinate cases.

**Selfishness of Specialists.**—One of my old students, when he first began practising, took a patient some hundreds of miles to a surgeon of Kansas City. He explained to the "specialist" that the patient had $30.00 for hospital and $150.00 for the doctors—absolutely nothing more. The eminent operator did the work, pocketed the $150.00 and—the young doctor pawned his watch and chain to get back to Nebraska. Talk about selfishness! This hog was a prominent member of the medical societies—above "dividing a fee;" but his asbestos wings would possibly have a less scarlet hue if he had been a little more thoughtful of the good of a fellow practitioner, even if "only a poor country doctor;" who now, by the way, is doing better operative work than the "professor" ever did.

### AN EXCELLENT REMEDY.

For many diseased conditions veratrum viride has for long been known as a valuable agent. It has indeed not been given as freely as it deserves, because many doctors have thought that a standard preparation of unvarying strength cannot be obtained. But this idea is incorrect. In the Norwood's Tincture, prepared by the Shakers' Society, we have a preparation of absolute reliability which can invariably be depended upon to give exact results. It you have not tried it in the various conditions mentioned in their advertisement in this journal, write to Robt. Halford, the agent, at New Lebanon, N. Y., and try the preparation obtainable thru him.

### FELLOWS' SYRUP OF HYPOPHOSPHITES.

It has sustained a high reputation in America and Europe for efficiency in the treatment of nervous disorders, as the following letters will show:

Charles A. L. Reed, M. D., Cincinnati, Ohio: "Your excellent preparation of the Hypophosphites has not only been a long-standing favorite with me in my private practice, but is almost a routine prescription of mine for patients at the Cincinnati Free Hospital for Women when convalescing from abdominal and other operations."

Henry O. Marcy, A. M., M. D., 180 Commonwealth Avenue, Boston, Mass.: "I have long employed phosphorous in various forms with much confidence, and considering your preparation very valuable as uniting in one compound the other essential tonics, I have used it in many cases where a nervine tonic was indicated."

### HYDROLEINE IN WINTER COUGHS.

Canadian Journal of Medicine and Surgery says: "We would recommend for winter coughs, bronchitis or phthisis, Hydroleine, an artificially digested cod liver oil. It is the best remedy for adults or children, as it is all assimilated by the stomach and does not pass off thru the bowels undigested. It is, therefore, of ten times more value than ordinary emulsions or plain cod liver oils, and its use is highly economical. For the past twenty-five years Hydroleine has been used by the leading physicians of Canada, such as the late Dr. Howard, of Montreal, Dr. Drydale, and many others. If you are not getting results with ordinary preparations of cod liver oil, try Hydroleine.